LiveType 2
User Manual

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An Introduction to LiveType

Welcome to LiveType, a special-effects titling application that's powerful, easy to use, and completely versatile—whether you're creating movie titles and credits, broadcast ads, or web banners.

Producing dynamic video titles—titles that really pop—can be a painstaking process, fraught with manual adjustments and keyframe stacks daunting even to experienced animators. With LiveType, you can create phenomenal results, in the output format you require, with a fraction of the effort.

How Does Titling Work?

Traditionally, titling was the term for adding text to film. The evolution of digital graphics and video technologies has expanded the definition, which now includes just about any combination of text and images you want to add to a movie. Titling is the process of creating a digital overlay, which is added to edited footage in your nonlinear editor (NLE), or compositing program. LiveType is the design studio where you generate titles to import into Final Cut Pro.

Alpha channel technology is the basis of titling. Most compositing and animation programs allow you to create art with an alpha channel. In addition, most NLEs use alpha channels they detect in an image or movie to properly lay the element over video.

An alpha channel represents eight bits of grayscale pixel information in a 32-bit file. The eight grayscale bits determine which portions of the image to superimpose over other layers. White alpha-channel pixels make the superimposed image completely opaque, while black pixels make the overlay completely transparent, or invisible. Gray levels represent varying levels of opacity.

LiveType automatically creates an alpha channel for your project when you render it with a transparent background.

A Realm of Creative Possibilities

LiveType has revolutionized titling in two major ways. First, it introduced 32-bit LiveFonts, a new approach to text animation in which every character of a font is a separate, animated movie. Second, LiveType handles effects and animation with greater ease than any other titling application.

Animated Fonts, Objects, and Textures

Three types of animated media are included in LiveType:

- *LiveType objects* are animated graphics.
- *LiveType textures* are moving images used to fill backgrounds, text, or objects.
- *LiveFonts* are complete, animated character sets.

All of these elements move inherently, even before you apply motion paths and special effects to them.

LiveType comes with dozens of LiveFonts and hundreds of objects and textures. What's more, you can create your own animated fonts using the LiveType FontMaker utility, building characters using virtually any graphical object—from 3D animations and images created in Photoshop to video clips—and apply effects to them, just as you would to words.

Effects Handling

Effects in LiveType are handled as separate entities—"packages" encompassing movement, transformation, and timing parameters—that can be applied to any number of elements in the Canvas. You can take advantage of more than 100 customizable effects that come with LiveType, including fades, zooms, rotations, and motion paths. Or you can create your own styles by adjusting existing effects or building them from scratch.

From an animation standpoint, LiveType is easier to work with than other titling applications, since one keyframe marker contains all the parameters for an element at a point in time, eliminating the complexity of long keyframe stacks.

And powerful timing features allow you to control every aspect of your animation. In addition to basic functions such as loop, speed, and duration, LiveType allows you to sequence your effects. Sequencing lets you animate characters in a line of text individually, with their own timing elements, so you're not constrained to blocks of text that fly around the screen as a unit.

Whether you're combining prebuilt elements or generating all the pieces yourself, you can create wholly original, eye-catching compositions with surprisingly little effort.

Workflow for Creating Titles

Video production is typically approached in layers from back to front, starting with shooting and editing the footage, then building in effects, then applying titles and sound. Likewise, your approach to title creation should be loosely approached from back to front. Of course, because the design process is fluid, there is no hard-and-fast prescription, but the following steps give you a sense of what's involved for a typical project.

Step 1: Configure the working environment

- Set the output resolution, frame rate, and other project properties.
- Set up the grid, guides, and rulers in the Canvas, according to your working preferences.

Step 2: Apply a background, if any

Step 3: Create elements (text or objects) in the Canvas, one by one

- Position and shape a track for the element.
- Add an element to the track.
- Select a font.
- Adjust attributes and apply styles to the element.

Step 4: Animate the elements

- Define the movie duration.
- Apply effects and adjust the timing.
- Customize the animation with keyframe adjustments.

Step 5: Preview and fine-tune the movie

Step 6: Render the final movie for compositing into your video

Step 7: Export the movie to an alternative format, if needed

You may be able to save considerable time by taking advantage of LiveType templates—project files provided with the software that offer many examples of titling formats. One might suit your needs with few changes, or you may find that certain elements within a template are useful, which you can copy into your own project. More about templates can be found in Chapter 2, "Setting Up a Project," on page 31.

About This Manual

Because LiveType is a creative tool, documentation can only go so far in describing its potential. This manual provides a detailed description of the LiveType interface, features, and functionality, and introduces you to the built-in resources and templates to give you a sense of the versatility of this product. In the end, you are limited only by your own creative vision, and the way to push the limits of LiveType is to jump in and start creating.

This manual begins with a description of the interface, followed by a series of chapters that explain the tasks you'll need to perform, as well as advanced techniques.

Note: This user manual is written for people with a rudimentary understanding of film or video production. Experienced users will be quite familiar with all such terminology herein. Others will find that most terms are defined in context, and the glossary at the end of this manual may be helpful as well.

LiveType Onscreen User Manual

The LiveType onscreen user manual allows you to access information directly onscreen while you're working in LiveType. To view the onscreen user manual, choose Help > LiveType User Manual. The onscreen user manual is a fully hyperlinked version of the user manual, enhanced with many features that make locating information quick and easy.

- The home page provides quick access to various features, including Late-Breaking News, the index, and the LiveType website.
- A comprehensive bookmark list allows you to quickly choose what you want to see and takes you there as soon as you click the link.

In addition to these navigational tools, the onscreen user manual gives you other means to locate information quickly:

- All cross-references in the text are linked. You can click any cross-reference and jump immediately to that location. Then, you can use the navigation bar's Back button to return to where you were before you clicked the cross-reference.
- The table of contents and index are also linked. If you click an entry in either of these sections, you jump directly to that section of the user manual.
- You can also use the Find dialog to search the text for specific words or a phrase.

LiveType Help also contains information about issues with third-party software and known bugs. This information is found in the Late-Breaking News section of LiveType Help.

To access Late-Breaking News:

- Choose Help > Late-Breaking News.

Note: You must be connected to the Internet to download the Late-Breaking News file.

Additionally, LiveType Help contains a link to the Creating LiveFonts PDF file. This document details the process of creating custom LiveFonts for use with LiveType.

To access the Creating LiveFonts PDF file:

- Choose Help > Creating LiveFonts.

Apple Websites

There are a variety of discussion boards, forums, and educational resources related to LiveType on the web.

LiveType Website

For general information and updates, as well as the latest news on LiveType, go to:

- http://www.apple.com/finalcutpro/livetype.html

Apple Service and Support Website

For software updates and answers to the most frequently asked questions for all Apple products, including LiveType, go to:

- http://www.apple.com/support

You'll also have access to product specifications, reference documentation, and Apple and third-party product technical articles.

For LiveType support information, go to:

- http://www.apple.com/support/livetype/index.html

Other Apple Websites

Start at the Apple homepage to find the latest and greatest information about Apple products:

- http://www.apple.com

QuickTime is industry-standard technology for handling video, sound, animation, graphics, text, music, and 360-degree virtual reality (VR) scenes. QuickTime provides a high level of performance, compatibility, and quality for delivering digital video. Go to the QuickTime website for information on the types of media supported, a tour of the QuickTime interface, specifications, and more:

- http://www.apple.com/quicktime

FireWire is one of the fastest peripheral standards ever developed, which makes it great for use with multimedia peripherals, such as video camcorders and the latest high-speed hard disk drives. Visit this website for information about FireWire technology and available third-party FireWire products:

- http://www.apple.com/firewire

For information about seminars, events, and third-party tools used in web publishing, design and print, music and audio, desktop movies, digital imaging, and the media arts, go to:

- http://www.apple.com/pro

For resources, stories, and information about projects developed by users in education using Apple software, including LiveType, go to:

- http://www.apple.com/education

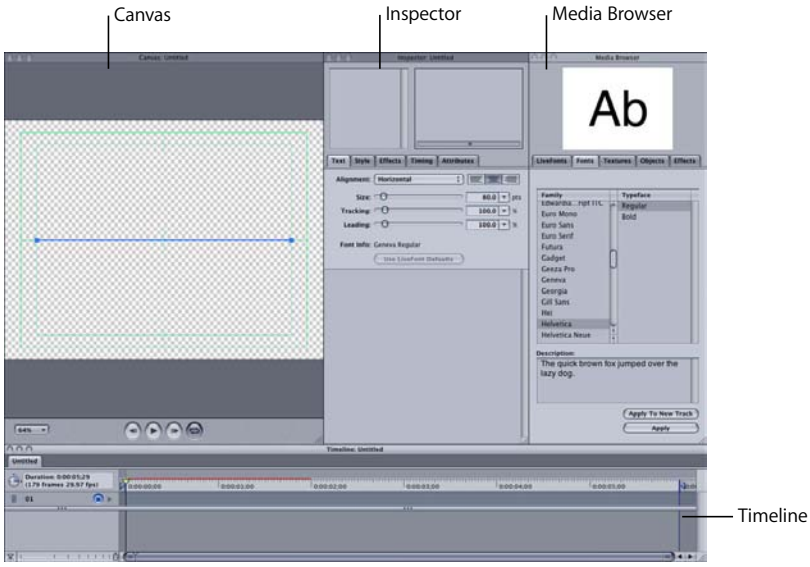
Go to the Apple Store to buy software, hardware, and accessories direct from Apple and to find special promotions and deals that include third-party hardware and software products:

- http://www.apple.com/store

The LiveType Interface

1

The LiveType interface consists of four primary windows—the Canvas, the Inspector, the Media Browser, and the Timeline.



- *Canvas:* This is where projects take shape. You use it to position text and objects, create motion paths, and view the results as you design.
- *Inspector:* A toolbox of settings and parameters, including virtually every option for building and customizing your titling creations.
- *Media Browser:* This area provides access to all the fonts, textures, objects, and effects you'll use to create your titles.
- *Timeline:* This is where you manage the frame-by-frame action of your titling projects. Animation keyframes are created and adjusted in the Timeline, allowing you to orchestrate the movement of your titling elements.

The four windows float freely, and can be moved and resized to suit your working preferences.

To restore the default layout of LiveType:

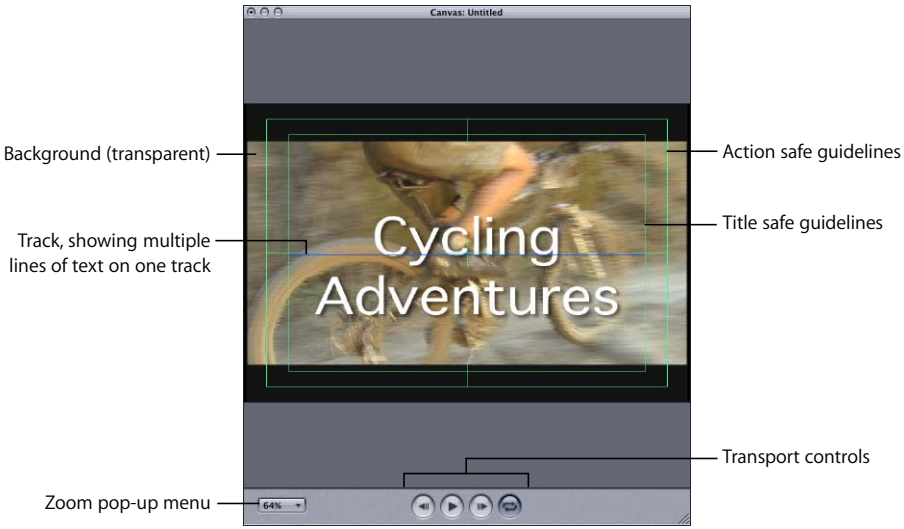
- Choose Window > Apply Default Layout.

Canvas

The Canvas is your creative working environment, reflecting the output dimensions you configure in the Project Properties dialog. (See "Setting Project Properties" on page 34.) Whether you are working in HDTV, NTSC, PAL, or any other format, the Canvas is designed to help you lay out and view your titling project easily.

About the Canvas Interface

There are various interface elements and controls in the Canvas, outlined below.



Background

When you first open LiveType, the default checkerboard pattern in the Canvas represents a transparent background, allowing alpha channel titles to overlay video footage when composited in a nonlinear editor (NLE) such as Final Cut Pro. You can set the background as any combination of the following:

- Transparent
- Solid color
- Animated texture or object
- Still image
- Movie

Backgrounds often cover the entire Canvas. However, when used with the matte feature in the Attributes tab of the Inspector, an element can appear to "punch through" an underlying element to reveal the background color, image, or movie. See "Creating a Matte" on page 72 for more about creating mattes.

Tracks

The dark blue horizontal line that appears in the default Canvas is a track. Tracks are the foundation of any LiveType composition. Every element of a project resides on a track. Tracks define:

- The position of text and objects in the Canvas
- The layering of elements
- In some cases, the path taken by moving elements

Tracks have two endpoints, and can have any number of "control points," which are nodes that create angles and curves in the track. When more than one track is in the Canvas, only the endpoints of the selected, or active, track are visible. This identification is helpful when you're applying attributes to a track.

Action Safe and Title Safe Guidelines

The green hairline boxes in the Canvas represent the "action safe" and "title safe" areas. The action safe area, defined by the outer line, is the extent of the screen where the image is readily visible, given the curvature of the cathode-ray tube (CRT). The title safe area, represented by the inner line, is the boundary beyond which text is not easily read.

To turn the action safe and title safe guidelines off or on:

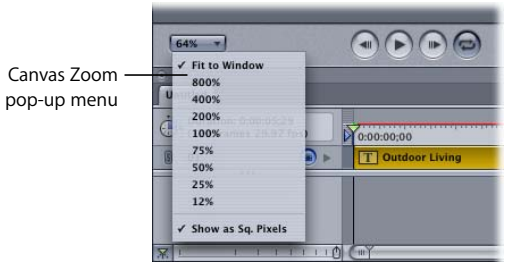
- Choose View > Title Safe.

Canvas Zoom Pop-up Menu

At the bottom of the Canvas is a pop-up menu for changing the magnification of the Canvas.

To change the Canvas zoom, do one of the following:

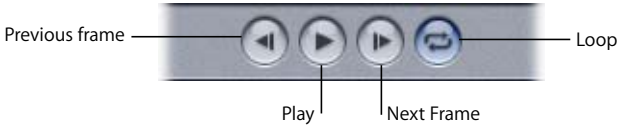
- Open the Canvas zoom pop-up menu at the bottom of the Canvas and choose one of the magnification options.



- Choose Fit to Window from the Canvas Zoom pop-up menu, then resize the Canvas window to a new magnification.
- Choose View > Zoom In or Zoom Out.
- With the Canvas active, use the Command-Z keyboard shortcut for Fit to Window.
- With the Canvas active, use the Command-+ or Command-– keyboard shortcut to zoom in or out.

Transport Controls

The transport controls allow you to generate a RAM preview of your project so you can preview your titling movie right in the Canvas. When you click the Play button, LiveType renders each frame into RAM memory. This feature is referred to as a *RAM preview*.



To render a RAM preview of your project in the Canvas:

1. Click the Play button (or press the Space bar when the Canvas or Timeline is active).

   The preview renders each frame, then runs through the preview in real time.

2. Stop the preview by clicking anywhere in the Canvas.

   The Play icon turns into a Pause icon when the RAM preview is playing. The Loop button is a toggle that gives you the choice of a single run-through or repeating the preview in a continuous loop.

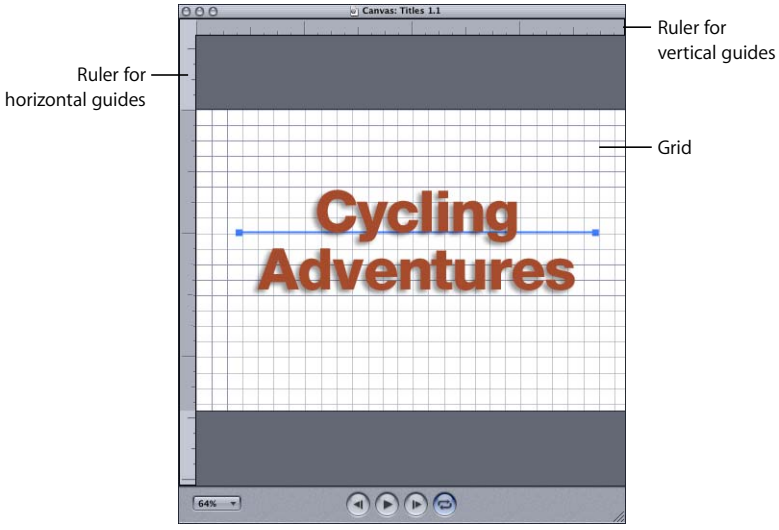
See Chapter 8, "Previewing and Fully Rendering Your Titling Movie," on page 109 for more about previewing your work.

Customizing the Canvas

Most Canvas settings can be customized from the View menu, allowing you to configure guidelines and magnification, and choose which elements appear in the Canvas. The grid, rulers, and guides are helpful for precisely aligning and positioning elements in the Canvas.

To show the rulers or the grid:

- Choose View > Rulers.
- Choose View > Grid.



You can set the number of pixels between each grid line in the Project Properties dialog.

To customize the grid:

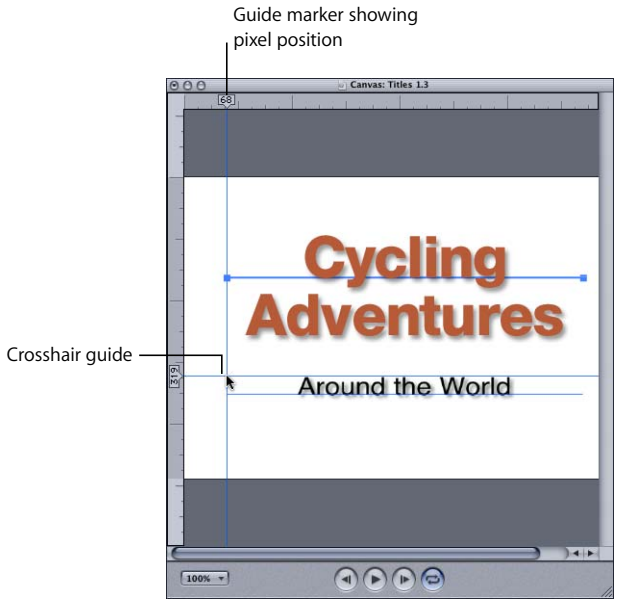
1. Choose Edit > Project Properties.
2. In the Ruler and Grid Settings area at the bottom, enter a new value in the Grid Width field.

To add a guide to the Canvas:

- Click inside one of the rulers to insert a guide marked by its horizontal or vertical pixel position.

To add crosshairs to the Canvas:

- Click inside one of the rulers and drag the pointer onto the Canvas.



To remove guides from the Canvas, do one of the following:

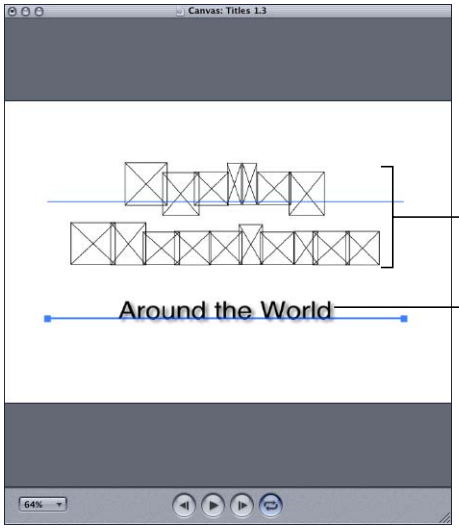
- Drag guide markers off either end of the ruler.
- Choose View > Clear Guides, which removes all guides.

You can isolate a single track and display all other elements as bounding boxes—rectangles that roughly show the size, position, and orientation of an element. This option is useful for cleaning up the Canvas as you work on a single track, and it saves preview-rendering time, because only one item of your composition is being rendered.

To isolate a single track in the Canvas:

- Select the track you want to continue working on, then choose View > Selected Only.

  Revert to the normal view by choosing View > Selected Only again.



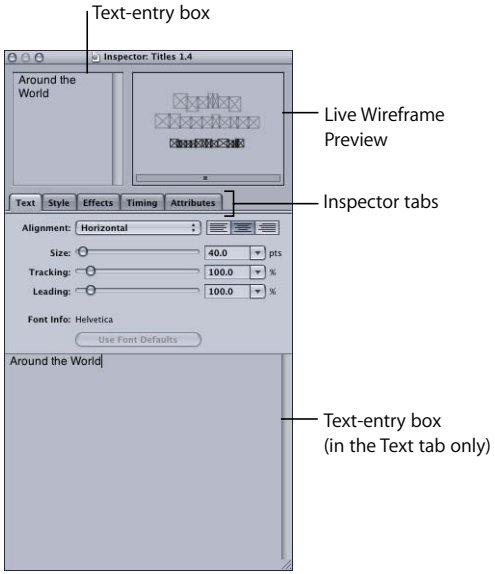
The Proxy Frame Only option in the View menu–which applies only when you're using installed LiveType media—renders LiveFonts, textures, and objects as proxy frames in the Canvas, essentially freezing their inherent animation.

Particularly when the animated element has highly variable content from frame to frame (such as Particles objects, which contain few if any pixels in the beginning and ending frames), the proxy frame is easier to work with, because it shows a more representative shape of the object regardless of the playhead position.

Inspector

The Inspector is your toolbox for transforming elements—text, objects, or images. There are unlimited combinations of parameters and attributes you can use to make your titles dynamic and original.

The Inspector consists of a text-entry box and Live Wireframe Preview at the top of the window, and five tabs of parameters. Inspector settings always apply to the track, character, or effect that is currently selected in the Canvas or Timeline.



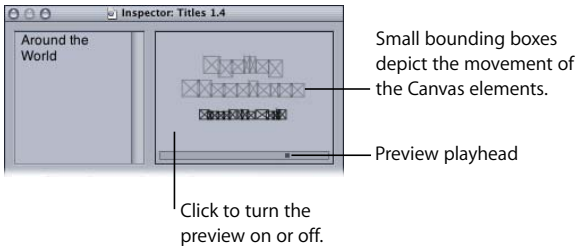
Text-Entry Boxes

There are two areas in the Inspector where you can add text to a track. One of these is in the upper-left corner of the Inspector. Because this text-entry box is visible no matter which Inspector tab is selected, it is a convenient way to identify the active track, as well as to add or change the text on a track, as you can type directly into it. The text-entry box at the bottom of the Text tab is larger, making it easier to insert and edit larger amounts of text.

The text-entry boxes also allow you to select individual letters or words on a track. When you highlight text in the text-entry box, those characters are selected in the Canvas. This is particularly useful when the text you want to modify is obscured in the Canvas by other elements.

Live Wireframe Preview

In the upper-right corner of the Inspector, the Live Wireframe Preview continually plays your titling movie, with small bounding boxes indicating the movement of each character or object. This feature gives you a quick indication of how your adjustments have changed the overall animation, without rendering a full preview with every change you make.



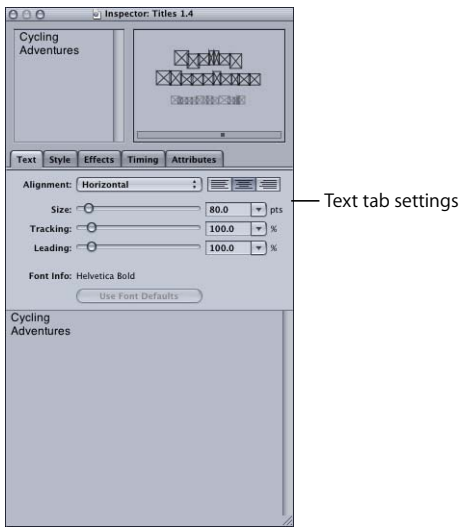
To freeze or unfreeze the Live Wireframe Preview:

- Click inside the preview area.

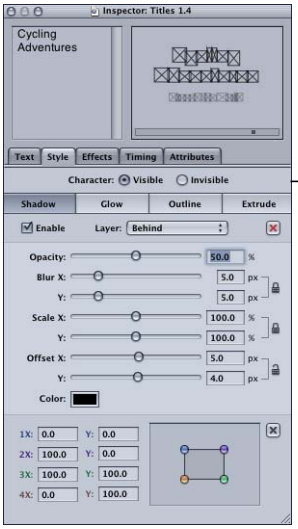
Inspector Tabs

There are five tabs in the Inspector.

- *Text tab:* This is where you enter text and adjust the size, alignment, and spacing of text on the active track.

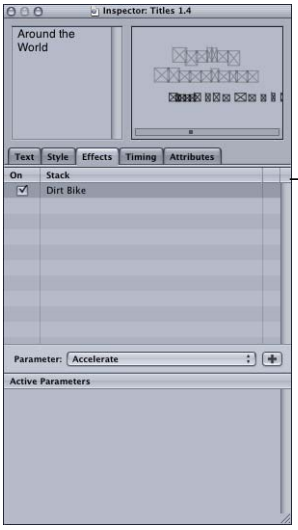


- *Style tab:* This tab provides options for the Shadow, Glow, Outline, and Extrude treatments, which can be applied to text or objects. These are often used to add depth and highlight the text or object, although a wide variety of graphical outcomes are possible.



Style tab settings

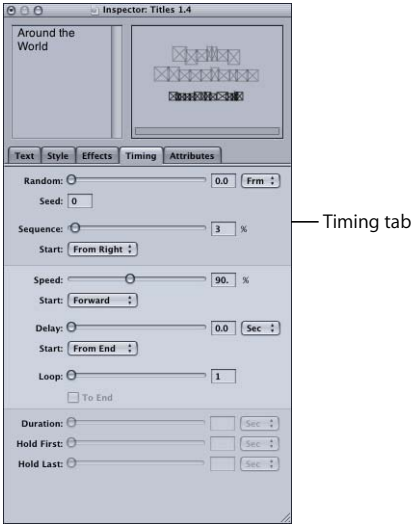
- *Effects tab:* This tab lists the effects that have been applied to the active track, and is used to view and change effect parameters at any point in your titling movie. Effects are combinations of movement and transformation that can be applied to any track. The On column of the Effects tab allows you to turn an effect off or on for individual characters on the track.



Effects tab

- *Timing tab:* Timing parameters for tracks and effects are controlled in this tab. While the Timeline provides a frame-by-frame diagram of tracks and effects with their associated keyframes, the Timing tab is a single pane that allows you to adjust the overall timing and modify the parameters of your animation.

  Some timing adjustments are made more easily by moving elements in the Timeline, rather than entering values in the Timing tab. However, the Timing tab gives you access to the full range of timing variables, as well as effect parameters that let you fine-tune your animation, creating exactly the look you want.

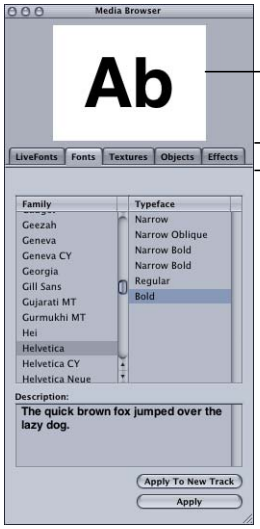


- *Attributes:* This is where you assign a variety of attributes—opacity, blur, scale, offset, rotation, and color—to elements in the Canvas. Attributes can be applied to entire tracks or individual characters on a track.

  The Attributes tab also contains options for creating a matte effect, in which an element appears as a cut-out window that reveals the element below it. A simple line of text, for example, can be matted to a movie clip, which essentially "fills" the text. The Matte to Texture option lets you fill track contents—even individual characters—with an animated texture, without having to add the texture to your project as a separate element.

Media Browser

Most of the installed resources available for your titling projects are available through the Media Browser—except for LiveType templates and images and movies you import from other sources. There are various tabs representing different elements installed on your computer: LiveFonts, system fonts, textures, objects, and effects. Using the Media Browser, you can scroll through and view representations of all these elements before you apply them to your project.



The Media Browser preview is the only way to see how LiveType media—LiveFonts, textures, and objects—move and transform until you install the full data file onto your computer. When you first apply one of these elements to the Canvas, a single representative frame is displayed, not the entire animated sequence. Installing the data component allows you to see a true representation of the LiveFont in each frame of your movie. See "LiveType Media Files" on page 28 for more about LiveType file management.

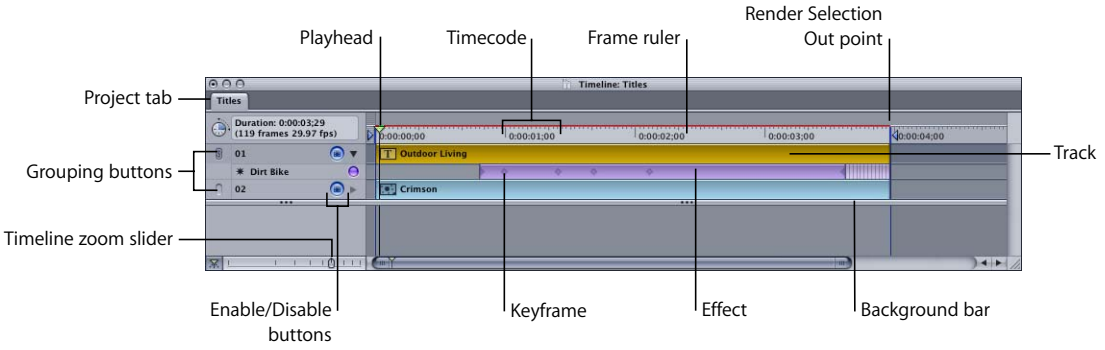
Timeline

The Timeline depicts the frame-by-frame orchestration of your titling project, and provides many tools for designing the movement and timing of your titles. The Timeline allows you to do the following:

- Set the timing and duration of tracks and effects
- Manage the track order, or layers
- Group tracks to maintain their relative position
- Enable and disable tracks and effects
- Work with keyframes to customize your animation
- Select specific frames to view or adjust
- Set markers to render only a portion of your movie for previews or final output

About the Timeline Interface

The following are the interface elements and controls in the Timeline.



Project Tabs

Tabs at the upper-left corner of the Timeline indicate which projects are currently open, and which one is active.

Playhead, Timecode, and Frame Ruler

The playhead and timecode on the frame ruler indicate which frame is showing in the Canvas. The playhead moves along the frame ruler when you play your project, and it can be dragged to any given frame.

To view a specific frame, do one of the following:

- Drag the playhead to the desired frame.
- Click a frame in the frame ruler.

The Canvas always reflects the frame under the playhead.

Render Selection Markers

The In Point and Out Point markers in the frame ruler allow you to determine the portion of your movie you want to render. Using these markers, you can:

- Save time rendering previews when you don't need to see the entire movie
- Choose the precise number of frames you want to include in your final output

To change the render selection, do one of the following:

- Drag the In Point and Out Point markers in the frame ruler.
- Position the playhead and press the I key on your keyboard to set the Render Selection In Point, or the O key to set the Render Selection Out Point. The Timeline must be active for these hot keys to work.

As you constrain the range of frames to be rendered, the information box in the upper-left corner of the Timeline reflects the modified duration and number of frames.

Note: To quickly locate the Out Point marker when it is beyond the end of the visible Timeline, move the Timeline zoom slider all the way to the right.

Tracks and Effects

Tracks are numbered according to their layer position in the left column of the Timeline, and Track 1 is always the top layer.

Effects are depicted as separate bars underneath the track they apply to. An effect may extend for the entire duration of the track, or only a portion of it. One track may have several effects applied to it, in sequence or overlapping.

Background Bar

Any item that falls below the background bar is a background element. You can drag the background bar up or down to any position between tracks in the Timeline. For more information, see "About the Background Bar" on page 43.

Keyframes

The basis of most digital animation, keyframes contain the parameters that elements in the Canvas reflect at a specific point in time. When a movie is rendered, LiveType interpolates the movement of the elements in between keyframes for smooth, continuous motion. When an effect is increased in duration, or stretched, the keyframes spread out with it, and the effect takes longer to complete. See Chapter 7, "Working With Effects and Keyframe Animation," on page 87 to learn more about keyframes.

Grouping Buttons

Grouping buttons let you group tracks together in the Canvas, locking their relative position while allowing you to move the group as a unit.

Enable/Disable Buttons

The Enable/Disable buttons turn tracks and effects off or on. When a track is disabled, its contents are removed from the Canvas, although the blue track line remains. Disabled tracks are not rendered in previews or movies. Similarly, effects can be disabled.

Timeline Zoom Controls

Typically you use the zoom controls to adjust the amount of time represented in the Timeline window. This is helpful to do while working with timing a long or complex composition.

The main zoom control is the Timeline zoom slider, which zooms in and out around the playhead as you drag.

You can also use the Command-+ or Command-– keyboard shortcut to zoom in or zoom out on the playhead when the Timeline is active. Another helpful command is Shift-Z, which adjusts the Timeline to show the entire project at once.

Shortcuts and Hot Keys

The LiveType interface includes numerous menu items and shortcuts to help you use the application easily and efficiently. It's important to note that the function of these options depends on which LiveType window is active.

For example, when the Canvas is active, the arrow keys nudge the active track in small increments. However, when the Timeline is active, the right and left arrow keys advance the playhead or move it back one frame.

LiveType Media Files

LiveType includes hundreds of media and effects files, which are the resources available to you within the Media and Template Browsers. Animated files include LiveFonts, objects and textures. Preset effects and templates, as well as various other LiveType resources, are also included with the application. These files are collectively known as LiveType media files.

LiveType now uses a single file format for media such as LiveFonts, textures, and objects, but media using the earlier "pair format" is still supported.

Locating LiveType Media Files

When you install LiveType, a folder hierarchy is placed in the following location: Library Application Support/LiveType/. This is where LiveType looks first for media files such as LiveFonts, objects, textures, effects, images, movies and templates. LiveType media files can also be installed on other hard disks including a network server. You can assign any location for media files from the Preferences dialog.

Media file types	Media filenames	Media file contents
Effects	LTFX	Contains effects files and sample movies for each effect.
LiveFonts	LTLF	Animated font characters
Objects	.LTOB	Pre-rendered animations with an alpha channel
Templates	LTTM	LiveType projects
Textures	LTTX	Full screen animated backgrounds. These animations can also be matted to any font character or element on the LiveType Canvas.

About Installing LiveType Media Files

The LiveType installation process allows you to install LiveType media files in any location. For more details concerning installing LiveType and the LiveType media files, see the Installing Your Software document that is enclosed with the installation discs.

Managing LiveType Media Files

Any element in the LiveFonts, Textures, Objects, and Effects tabs of the Media Browser has a corresponding media file, which contains the components needed to work with LiveType. Once these media files are installed in the /Library/Application Support/LiveType folder, you can move them to a different disk.

To use LiveType media that is located outside the application support folder:

- Assign the location of the media files from within LiveType using the Preferences dialog. Choose LiveType > Preferences.

Note: To use LiveType media that is located outside the application support folder, assign its location from within LiveType using the Preferences dialog. If you have media installed from a previous version of LiveType, the Media Browser reads "Yes" or "No" in the Installed column for that media which indicates whether or not the media files are installed. This convention only applies to earlier "file pair" formats. New content comes in the form of media files that appear in the Media Browser with a double dash in the Installed column indicating they are installed. The Install and Uninstall buttons in the lower-left corner of the Media Browser do not apply to the newer content, only to LiveType media files from previous versions of the application.

Creating Custom Categories for LiveType Media files

You can create custom categories for LiveType Media by simply creating a new folder within the Media folder, such as LiveFont/My folder/My font.
LiveType only recognizes one folder level after the original media category.

You can move "file pair" media files from previous versions of LiveType to another disk, but they must be in the same folder hierarchy that they were previously located in.

Using Imported Files

When you use graphics or movies from other sources in your project, LiveType needs to refer to the source files for these external elements. Therefore, once you've placed an image or movie, it's best not to move or rename the source file. The Images folder in the LiveType folder hierarchy is a convenient place to store images associated with your projects.

Setting Up a Project

2

The most important step as you begin any LiveType project is to configure the project properties.

As tempting as it may be to jump right in and start designing, you should define your output parameters and save the project to disk at the outset, to be sure your titles are generated at the size and resolution you need.

If you go ahead and generate a titling movie without initially configuring the project, you're bound to run into trouble. Although these settings can be changed at any time, a titling composition created for standard broadcast, for example, will fill only a portion of the screen if it's changed to high definition format after the fact.

First, you need to open a new project. You have two options:

- Start with a LiveType template.
- Start with an existing LiveType project you've already created.

Templates

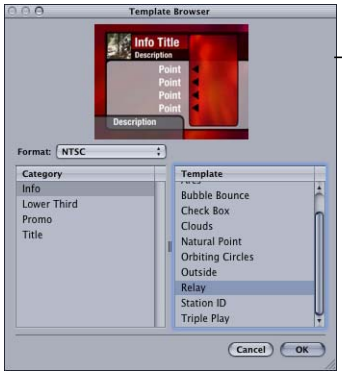
LiveType includes dozens of templates, which are LiveType project files organized by category. You can use templates in several ways:

- As the starting point for your own creations
- As repositories of preconfigured elements you can paste into your own projects
- As a resource for sparking ideas and seeing what's possible with LiveType

The templates comprise many types of prebuilt projects, all of which you can revise for your own purposes.

To open a template:

1. Choose File > Open Template.
2. Browse the categories of templates in the Template Browser.



The Template Browser

3. In the Template Browser, choose NTSC, PAL, or HD from the Format pop-up menu.
4. Choose a template, then click OK.

Whenever you open a template, make sure to set your project properties immediately. See "Setting Project Properties" on page 34.

You can save your own projects as templates, so they're accessible through the Template Browser.

To save your project as a template:

1. Place the project file (.ipr) in a folder in this location: /Library/Application Support/LiveType/Templates.
2. Generate a short QuickTime movie of the project (with the same name but an appropriate movie extension, such as .mov or .mp4).

Once you do this, the template will appear in the preview window of the Template Browser.

Starting a New Project and Setting Defaults

When you open LiveType, an untitled default project appears in the interface.

If you want to start a new project when LiveType is already open, you need to open a new default project.

To open a new project:

- Choose File > New.

A new project with an empty Canvas appears and an "Untitled" project tab is added to the Timeline.

Note: At least one LiveType project must be open at any time, so if you close the only open project, a new default project automatically opens.

You can configure your LiveType interface and save your settings as the default. Default settings include project properties, font and media choices, Canvas options, the tabs that are revealed, and various other settings. This is particularly useful for saving your preferred output format, so you don't have to reconfigure the project properties each time you open a project.

To save your default settings:

1. Set up a LiveType project with the settings and configuration you want.
2. Choose LiveType > Settings > Remember Settings.

Every time you subsequently open a new project or open LiveType, the current default settings apply. Content elements in the original project are not saved as part of the default project.

It is possible to find yourself with a default configuration that's undesirable and difficult to get out of. You can easily wipe clean your settings and revert to the original LiveType settings.

To erase your project settings:

- Choose LiveType > Settings > Clear Settings.

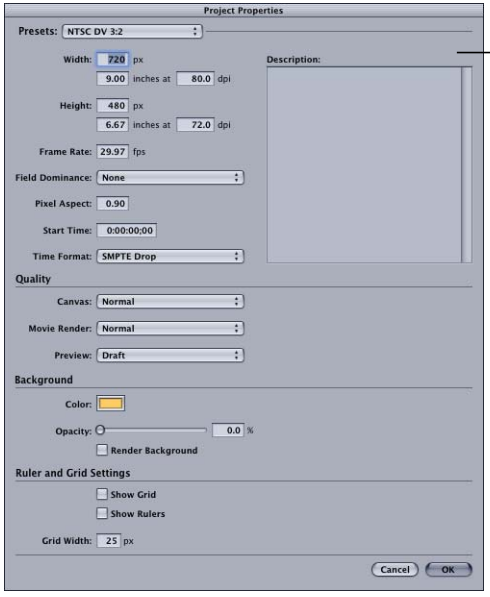
Setting Project Properties

Once you've opened a new project and saved it to disk, you need to define the output you want to create. All of the essential project settings are accessed through the Project Properties dialog.

To open the Project Properties dialog:

1. Choose Edit > Project Properties.
2. Make the desired changes, then click OK.

For detailed information, see the next section, "Settings in the Project Properties Dialog."



The Project Properties dialog

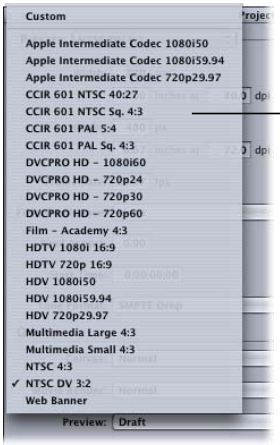
Settings in the Project Properties Dialog

There are various pop-up menus, colors, and settings you can select when specifying the properties for your project.

Presets

Presets establish the width, height, frame rate, and pixel aspect defined by the selected standard.

- *Presets:* This pop-up menu lists the most common output formats. After you select a different preset, you'll notice how the settings change. You can also see how selecting different presets affects the shape and size of the Canvas.



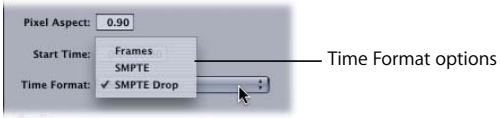
Preset properties automatically set the project resolution, frame rate, and so on, for the most common output formats.

If none of the presets conform to your project, you can configure the dimensions and frame rate manually. "Custom" will then automatically appear in the Presets field.

Note: Web banner and multimedia options are included among the presets, since LiveType is effective for building animations for the web or for Keynote, for example, which imports QuickTime movies directly. Keep in mind that web banners are typically created in GIF format. To create a GIF, you need to use another program to translate your LiveType output.

- *Width:* This is the width, in pixels and inches.
- *Height:* This is the height, in pixels and inches.
- *Frame Rate:* This is the frame rate, in frames per second.

- *Field Dominance:* When your project is intended for interlaced video output, choose either Upper (Odd) or Lower (Even) for the smoothest animation. After the proper option is chosen, LiveType renders fields with either the upper or the lower field first. Choose None for footage that is non-interlaced. DV footage is typically Lower Field First, while certain video capture cards may need to be rendered with the Upper (Odd) option chosen. In all cases, use the fielding option that matches your video system settings. For more about this, see "Choosing a Field Order" on page 38.



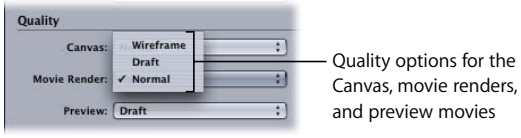
- *Pixel Aspect:* The ratio of width to height of a single pixel, or pixel aspect, can differ from format to format. The pixel aspect is set by preset properties, or you can enter a custom pixel aspect value.
- *Start Time:* You can map the start time of your project to a precise point in your edited video, making it easy to overlay your video at the compositing stage. Start Time units reflect the time format entered in the field to the right.
- *Time Format:* This setting defines how the position of audio or video is marked in time. There are several choices—Frames, SMPTE, and SMPTE Drop.

Description Field

The description field is a useful place to store notes about the project, as well as a description of any nonstandard output parameters you've configured, for future reference.

Quality Settings

Quality settings can have a big impact on the amount of time you invest in a project. As you design your titling animation and try out different effects, you will preview your movie many times. And each time, your system has to render the movie, frame by frame.



These settings in this area allow you to configure the quality of three different items:

- *Canvas:* A RAM preview in the Canvas
- *Movie Render:* A full movie render
- *Preview:* A standard preview accessed via the File menu

How you preview your movie depends on where you are in the design process. You may find yourself changing these settings several times as you design your titles, particularly if it's a complex composition that takes considerable time to render.

A Wireframe preview, which displays rectangular bounding boxes representing each character, renders very quickly. When you're focusing on the motion of your Canvas elements, not their visual attributes, previewing in Wireframe mode is highly efficient. The Wireframe, Draft, and Normal settings render your project at increasing resolution levels.

Background Settings

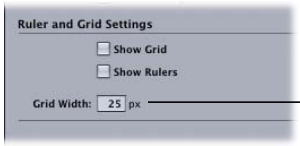
These settings allow you to select a Canvas color and its opacity level.

- *Color:* This allows you to choose a background color in the Canvas.
- *Opacity:* This setting reflects the opacity of the color selected above. An opacity level of 0 equates to no background color, and the Canvas shows the checkerboard pattern indicating a transparent background.
- *Render Background:* When this checkbox is selected, any background color, as well as other background elements, render in previews or final movies.

  Important: The Render Background checkbox applies to all elements that fall below the background bar in the Timeline, as well as the background color, which is not represented in the Timeline. If the checkbox is not selected, the background color and other background elements are not rendered in previews or final movie renders. For more information, see Chapter 3, "Adding a Background," on page 41 which presents a complete explanation of working with backgrounds in LiveType.

Ruler and Grid Settings

You can display or hide the Canvas rulers and grid, and set the space between gridlines at the bottom of the Project Properties dialog. See "Customizing the Canvas" on page 17 for more about the rulers and grid.



The gridline frequency, or grid width, is set in the Project Properties dialog.

Choosing a Field Order

You can run a simple test to determine the proper field order for your system. When you make a movie, the rendering order (upper field first or lower field first) should correspond to the method used by your equipment, or your movie will appear distorted.

Note: The field order with which you record to video equipment can be altered by changes in the hardware or software of your production setup. For example, changing your video board, device control software, or VCR after setting the field order can reverse your fields. Therefore, any time you make a change to your setup, you should run this test for field rendering order.

To test your system, render two LiveType projects, one rendered with upper field first and one with lower field first.

Important: You may need to familiarize yourself with the basic functions of LiveType before you go through these steps.

To test the field rendering order:

1. Start a new LiveType project.
2. Choose Edit > Project Properties.
3. In the Project Properties dialog, do the following:
   a. Choose an NTSC or PAL setting from the Presets pop-up menu.
   b. Choose Lower (Even) from the Field Dominance pop-up menu.

   Do not choose Upper (Odd). In this case, you are rendering the lower field first.
4. In the Inspector, do the following:
   a. Type a capital "O" in a system font on Track 1.
   b. Increase its size to fill most of the Canvas.
   c. Color the letter red, then choose black as your background color.
5. Apply a fast-moving effect to the track, such as Jumpy, in the Caricature effect category in the Media Browser.
6. In the Timing tab, set the speed of the effect to 100 percent.
7. Choose File > Render Movie.
8. Enter lower.mov as the filename in the Save As field, then click Save.

   The movie renders to your chosen location.
9. Now change the color of the capital "O" to blue. Select Upper (Odd) in the Project Properties dialog.
10. Save the file, naming it upper.mov.
11. Render the second movie.

12 Import the rendered files into Final Cut Pro, then play back both movies on an NTSC monitor.

One of the two movies will look distorted; the other movie will play correctly, with sharply defined edges. Whenever you render a LiveType movie for that system, use the settings you used for the undistorted output.

Adding a Background

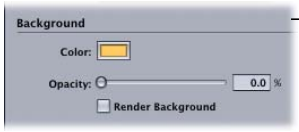
3

Backgrounds in LiveType generally serve one of two purposes: Either they are an integral part of the titling composition, or they are used as an aid to position elements and key the timing of the titling movie.

Although anything can be a background, a background is usually a uniform color, animated texture, still image, or movie that fills the Canvas. While background images, movies, and textures tend to fill the Canvas and aren't extensively manipulated, they can be sized, positioned, and transformed in many ways. For more information, see Chapter 6, "Working With Objects, Textures, and Imported Elements," on page 79.

Setting a Background Color

The most basic kind of background is a background color, which covers the Canvas and cannot be manipulated except for its opacity level. It's best to think of the background color as a project property, not an element that can be moved or changed.



Background settings in the Project Properties dialog

The default background has an opacity of 0 percent, which means the Canvas displays a transparent background, represented by the white and gray checkerboard pattern.

To choose a background color:

1. Choose Edit > Project Properties.
2. Click the Color button in the Project Properties dialog.
3. In the Colors window, choose a color, then close the window.

   Note: Make sure you always close this window after you have selected a color.
4. Drag the opacity slider or enter a value in the field greater than 0 percent. Click OK.

   The background color appears in the Canvas.

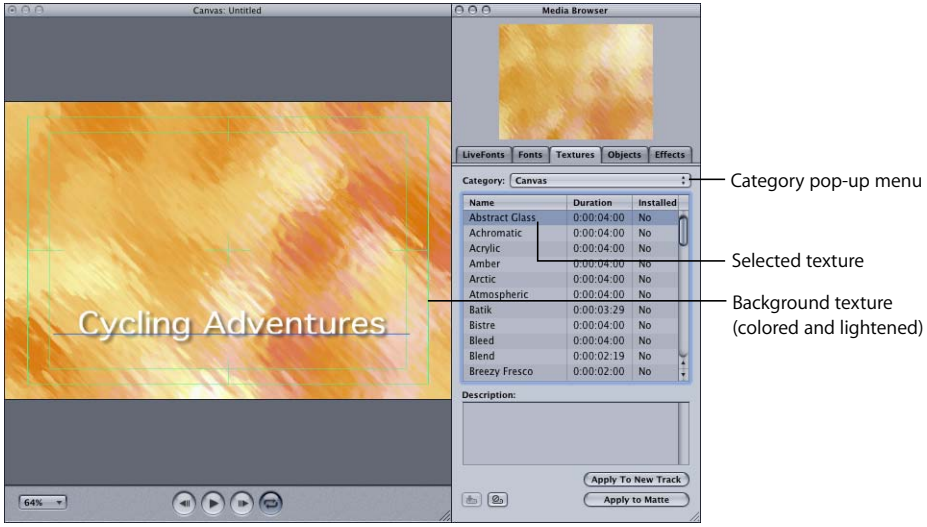
Adding a Background Texture

LiveType textures make vibrant, animated backgrounds. They are also frequently used with the matte feature, which allows you to apply a textured fill to text or an object. See Chapter 5, "Working With Text," on page 57 for information about creating a matte.

To create a textured background:

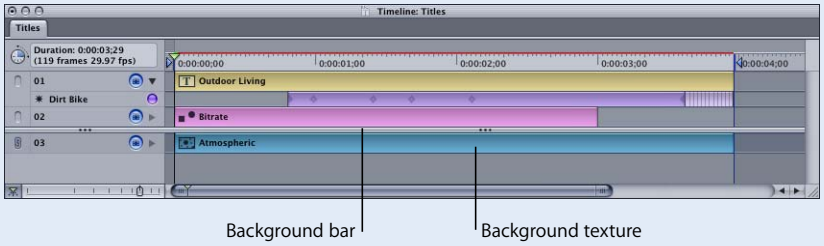
1. Click the Textures tab in the Media Browser.
2. Browse the texture categories and select a texture.
3. Click the Apply To New Track button.

   The texture fills the Canvas and appears as a background track in the Timeline.



About the Background Bar

The background color is different from background elements in your project. Background elements are represented in the Timeline and can be manipulated in various ways. A project can have many background elements, or none. The only definitive way to distinguish a background element, be it a LiveType object or texture, a movie, or an image, is that it falls below the background bar in the Timeline.



You can drag the background bar up or down to any position between tracks in the Timeline. Any element below the background bar is subject to the Render Background checkbox in the Project Properties dialog.

Importing a Background Movie or Still Image

You can import images or movies from other sources and use them as backgrounds for your titling project. For any given project, you might choose to use the following:

- A single frame or movie clip as a temporary background, to accurately position and time the action of your titles
- A movie to embed as part of your titles
- A static image or graphic

LiveType can import background elements in a variety of formats:

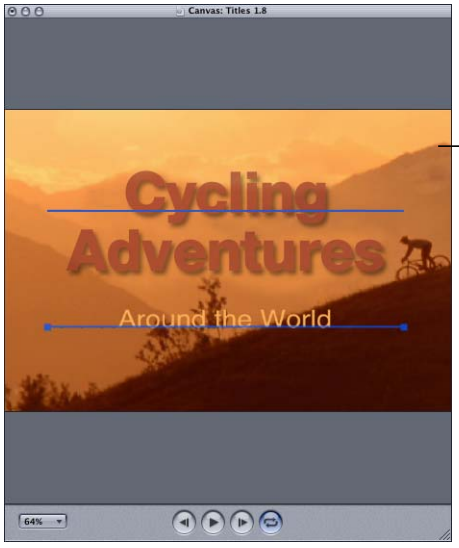
- AVI
- BMP
- DV
- GIF
- JPEG
- MPEG-2 and MPEG-4
- Photoshop
- PICS
- PICT
- PLS

- PNG
- QuickTime image file
- QuickTime movie
- SGI
- Targa
- TIFF

To import a background movie:

1. Choose File > Place Background Movie.
2. Locate the movie file you want to place, then click Open.

   Note: When you import a background movie, the project dimensions and frame rate adjust automatically to conform. It's a good idea to review your project properties when you import a new background movie.



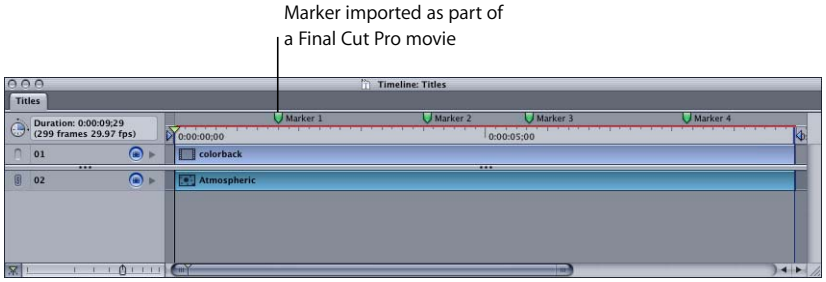
To import a background image:

1. Choose File > Place.
2. Locate the file you want to place in the Canvas, then click Open.
3. In the Timeline, do one of the following:
   - Drag the image track below the background bar.
   - Drag the background bar above the image track.

   Note: Placing an image or movie using File > Place does not affect the resolution or frame rate of the project. That is, the image or movie conforms to the project settings.

Importing a Background Movie With Timing Markers

Final Cut Pro allows you to save movies that include timing markers, which can be useful when setting the precise timing of your titles. When you place a Final Cut Pro movie in LiveType, the markers appear in the frame ruler of the Timeline. Markers cannot be repositioned in the Timeline. Clicking them, however, moves the playhead to the marked frame.



Considerations for Rendering the Background

You have the option of rendering or not rendering the background in your project. The background settings in the Project Properties dialog—Color, Opacity, and Render Background—provide several options that affect your working environment and the final result of your project.

If you're creating a standalone animation, web banner, or multimedia component, for example, you might want to include a full background as part of your movie output. If you're creating a titling overlay, you won't want to render the background in most cases.

Consider these options:

- *To include a background image, movie, or animated texture in your final output,* leave the background color opacity at 0 percent and select the Render Background checkbox.
- *If you want an opaque or semitransparent solid color background in your final output,* choose a color and opacity level, and select the Render Background checkbox.
- *If you don't want background elements in your final output,* deselect the Render Background checkbox. This option allows you to do the following:
  - Import a background movie or image for placement and timing reference only, without incorporating it into your titling output.
  - Define a Canvas color other than the default checkerboard pattern, according to your working preferences.

Working With Tracks

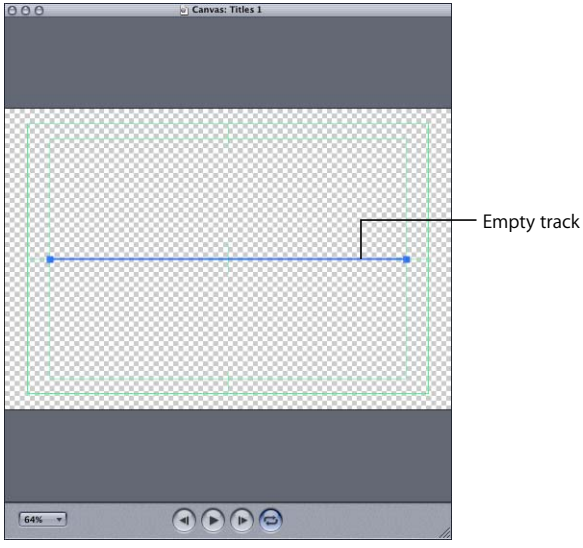
4

To create anything in LiveType, you need to be familiar with tracks. Every element of a titling composition is part of a track, and each track can contain one or more lines of text, an image, a movie, or an animated object or texture.

Tracks are "containers" of content, represented by dark blue lines in the Canvas with corresponding bars in the Timeline. A track comprises all of the information about its content:

- Position, shape, and baseline
- Attributes such as color, shadow, font, and spacing
- Effects and timing

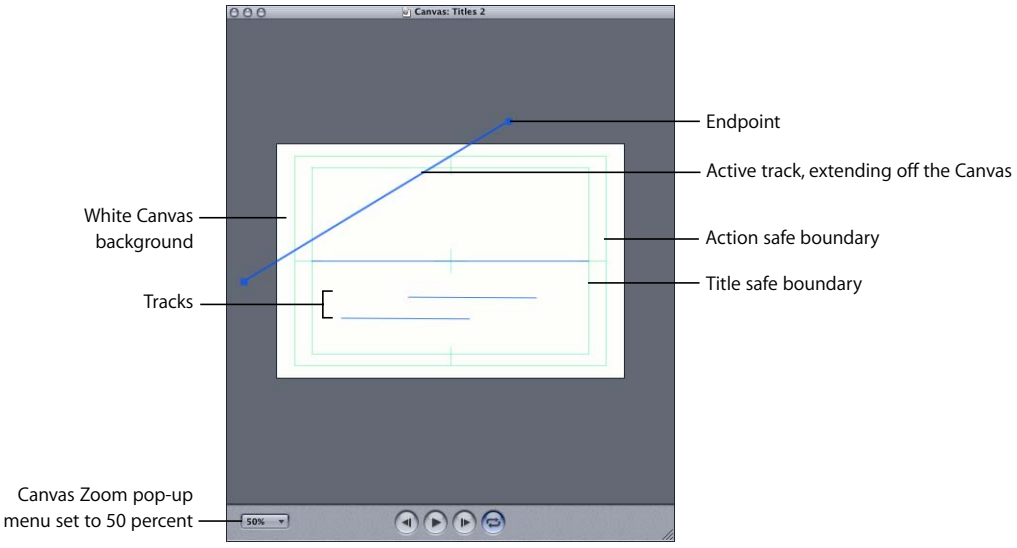
This chapter explains how tracks are moved and shaped in the Canvas, and how they can be manipulated in the Timeline. The next three chapters describe in detail how to apply text, objects, and effects to tracks to assemble your composition.



Positioning Tracks in the Canvas

When you first open LiveType, the default Canvas contains a single empty track with two endpoints.

The shape of a track defines the default baseline on which its contents sit. Tracks can be manipulated at any time, whether or not they contain an element. If you're creating a track along which to slide text, or if you want your text to conform to a specific shape, you might want to shape and position the track before you add text to it.



To position a track:

- Drag a track to move it anywhere in the Canvas, or partially off the Canvas.

  Tracks can extend beyond the boundaries of the Canvas, allowing elements to slide in and out of the viewable area.

To create a sloping track or to resize it:

- Drag one of the track's endpoints.

  Note: Hold down the Shift key when you position an item in the Canvas to constrain its horizontal, diagonal, or vertical position. This applies to tracks, endpoints, objects, and characters.

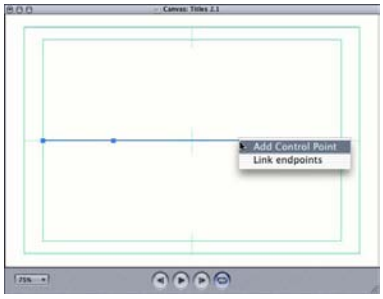
Creating Angles and Curves

Tracks can take any linear path. You can even link the endpoints of a track so that an element can flow around it in a continuous loop.

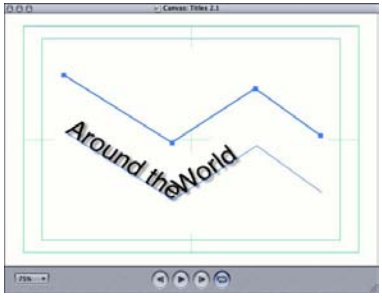
To add an angle to a track, you must add a control point to it. A track can have any number of control points.

To create an angle on a track:

1 Hold down the Control key and click the track anywhere between the endpoints, then choose Add Control Point from the shortcut menu.



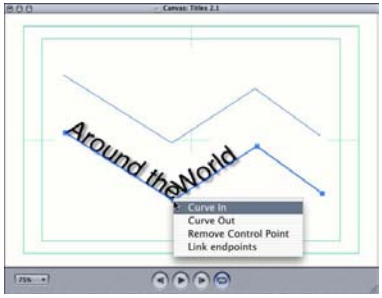
2 Drag the new control point and the endpoints to create the angle you want.



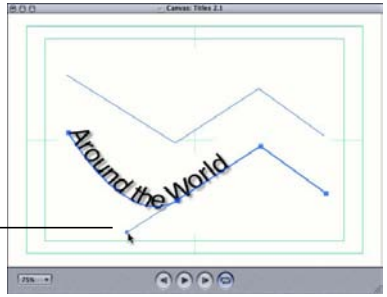
Control points are also necessary for creating curves. If you're familiar with Bezier curves, this will be a snap. If not, it may take a bit of experimentation.

To create a curved track:

1. Follow steps 1–2 above to create an angle on a track.
2. Hold down the Control key and click the control point, then choose Curve In from the shortcut menu.



3. Drag the Bezier handle to adjust the curve.

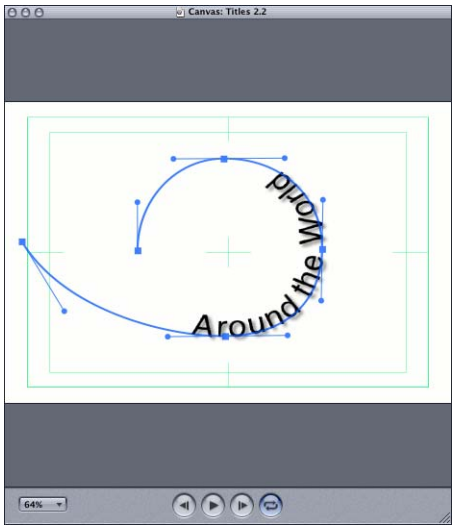


A Bezier handle appears as a small point on the track near the control point.

4. Hold down the Control key and click the same control point, then choose Curve Out from the shortcut menu.

   Another Bezier handle appears, and the curve is smooth at the control point.

Note: You can apply a curve to an endpoint as well, but clicking an endpoint brings up only the Curve In or Curve Out option—not both—since the track extends in only one direction away from the endpoint.



Linking Endpoints

The Slide parameter, used in several preset effects, allows text to move along a track. If the endpoints are linked, the text can move around the track on a continuous path. See Chapter 7, "Working With Effects and Keyframe Animation," on page 87 for more about effects and motion paths.

To create a motion path that is a continuous loop, you need to link the endpoints of a track. The endpoints do not need to overlap. In fact, they can be positioned at opposite ends of the Canvas, and still be linked. Linking the endpoints allows text or objects to loop immediately from the end to the beginning of the track when an effect using the Slide parameter is applied to them.

To link the endpoints of a track:

- Control-click one of the endpoints of any track, then choose Link Endpoints from the shortcut menu.

You can unlink endpoints using the same method.

Adding, Copying, and Deleting Tracks

There are numerous ways to add a track to the Canvas.

To add a new, empty track, do one of the following:

- Choose Track > New Text Track (or press Command-T).
- Choose a font in the Media Browser, then select Apply To New Track.

Sometimes it's useful to create a duplicate track, with the identical position, shape, contents, timing, and effects as a track you've already built.

To duplicate a track:

1. Select the track you want to duplicate.
2. Choose Track > Duplicate Track (or press Command-D).

The duplicate overlays the original track precisely, so at first, you can only tell that a duplicate has been made by the addition of a new track in the Timeline. Overlaying tracks with identical elements but different effects and parameters is a great way to produce sophisticated title animations. Drag the duplicate off the original to see both tracks.

To delete a track:

1. Select the track you want to delete.
2. Do one of the following:
   - Choose Track > Delete Track.
   - Press the Delete key.

You can also copy a track from another project, such as a LiveType template or a project you've created previously, into your current project.

To copy a track from one project to another:

1. Open both the source and destination projects.

   A tab for each of the projects appears in the Timeline.
2. In the source project, select the track you want to copy, then choose Edit > Copy.
3. Click the tab of the destination project in the Timeline, then choose Edit > Paste.

Working With Tracks in the Timeline

As you add tracks to the Canvas, they appear as numbered bars in the Timeline. As you apply effects to each track, they appear as unnumbered bars below the track.

Adjusting the Timing of a Track

When you add a track to the Canvas, by default it begins at the frame indicated by the playhead. The duration of a track varies, depending on its contents. A track containing text in a system font or a static image defaults to a duration of two seconds. The duration of a track containing LiveType media or any imported movie depends on the length of the movie.

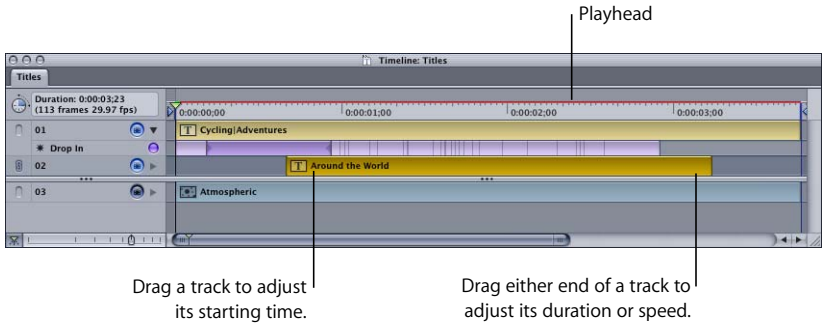
These basic timing parameters are easily changed in the Timeline window by stretching and moving the track bars. Delay and duration can also be defined in the Timing tab of the Inspector, as can many other timing parameters.

To adjust the duration of a track, do one of the following:

- Drag either edge of the track bar to the right or left.

  Note: Changing the duration of tracks that contain movies or LiveType media changes the speed at which the movie plays. If you shorten the duration of a LiveFont track, for instance, it plays faster.

- Select the track and do one of the following:
  - For static content, adjust the Duration parameter in the Timing tab of the Inspector.
  - For movies and animated content, adjust the Speed parameter in the Timing tab.



If you like, you can make the track contents appear later than the first frame.

To delay the appearance of a track, do one of the following:

- Click inside the track bar and drag it to the right.
- Select the track and adjust the Delay slider in the Timing tab of the Inspector.

You can also reposition more than one track at the same time, which is a useful way to maintain the relative position of tracks as you change their delay times. This is known as a ripple drag.

To move two or more tracks in the Timeline at once:

- Press the Option key, and drag the left-most track (the track with the earliest starting time) of the group you want to move.

  All tracks to the right of the selected track (tracks with later starting times), including their associated effects, move as a block with the selected track.

Layers and Track Order

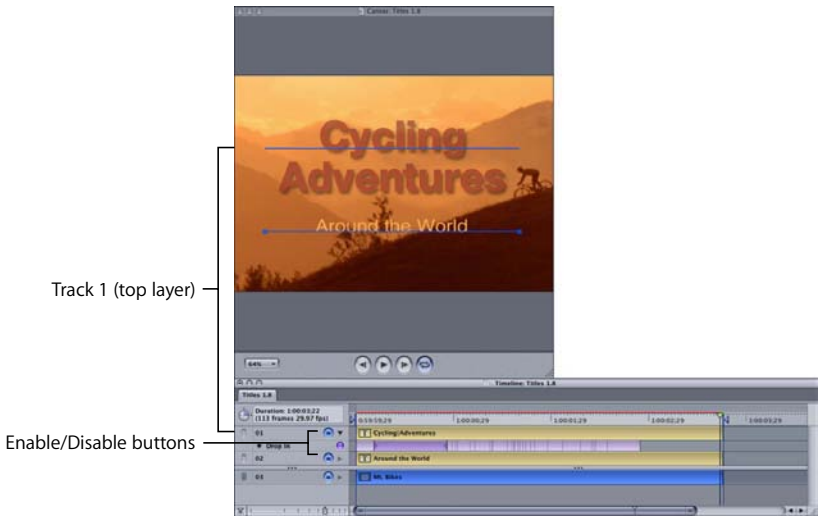
Elements in the Canvas invariably overlap, which is why it's important to manage track layers. When you create a new track, it is always the top layer. Any content you add to that track is in front of all other elements in the Canvas.

Note: In the Timeline, tracks are displayed in front-to-back order, with Track 1 in front.

To change a track's front-to-back position, do one of the following:

- Click inside the track bar in the Timeline and drag it up or down, to a new position.
- Select the track you want to move, either in the Canvas or in the Timeline, then choose one of the options from the Layout menu: Bring to Front, Send to Back, Bring Forward [one layer], and Send Backward.

The tracks renumber to accommodate the new order.



Disabling Tracks

You can disable tracks, as well as effects applied to tracks, in the Timeline window. This can be useful in reducing clutter in the Canvas, and it saves preview-rendering time when you only need to preview one or a few elements. Deactivating elements is also useful for comparing different design choices.

To disable a track or effect:

- Click the Enable/Disable button immediately to the left of a track or effect in the Timeline.

  While the blue baseline of a disabled track remains in the Canvas, its contents no longer appear in the Canvas, are not represented in the Inspector's Live Wireframe Preview, and do not render when you generate a preview or final movie.

Grouping Tracks

It is often useful to group two or more tracks together, to maintain their relative position in the Canvas. Grouped tracks can be moved in the Canvas, but they stay together as a group. When tracks are stacked on top of each other, grouping is the only way to move the stack as a unit.

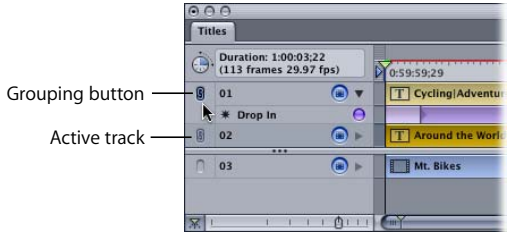
For example, you might want to create a two-layer effect where a word fades out to nothing, revealing the same word underneath with an animated texture applied to it. To do this, you have to create a track that precisely overlays the original using the Duplicate Track command in the Track menu. Now, if you want to reposition the tracks in the Canvas, you need to group them together.

To group two or more tracks:

1. Make sure you have more than one track in the Canvas.
2. Select a track in the Canvas or Timeline.

   This is now the active track, and the grouping button to the far left of the track bar is dimmed.
3. Click the grouping button of a different track.

   The link icon appears, indicating that the track is grouped with the active track (the track you selected in Step 2).



4. In the Canvas, move either of the grouped tracks, and notice that they move together.
5. In the Timeline, click the grouping button of a third track.

   Now three tracks are grouped together.

To ungroup tracks:

- Select one of the grouped tracks, then click the grouping button of the track you want to ungroup.

  The link icon disappears, and the tracks can now be moved independently.

  Note: Grouped tracks maintain their relative position, but their contents can still be altered and moved. If you drag a grouped track, other tracks belonging to the group move too. However, if you drag a glyph that resides on one of the grouped tracks, the glyph moves independently. Its Offset parameter is being changed while the track itself stays put.

Working With Text

5

Titles can incorporate all kinds of visual elements, but their traditional function is to display text. This chapter describes how to insert and format text, including manipulating individual characters on the same track.

Adding movement to text—that is, beyond the inherent animation of LiveFonts—is covered in Chapter 7, "Working With Effects and Keyframe Animation," on page 87.

Inserting Text

Like any Canvas element, text must reside on a track. There are three approaches to adding text, in a particular font, to the Canvas:

- Create a track, select a font, and then add text to the track.
- Create a track, add text to it, and then apply a font.
- Choose a font first, click the Apply To New Track button in the Media Browser, and type in the text.

The steps below describe the first approach.

To add text to the Canvas:

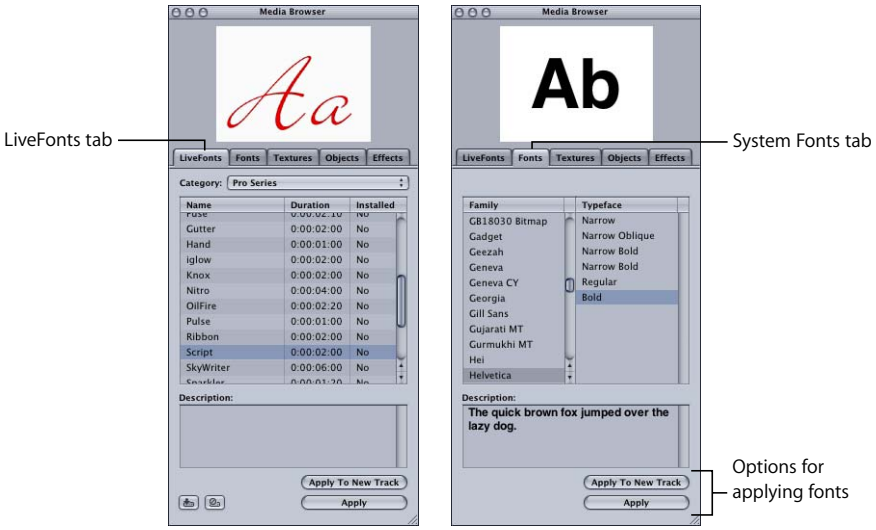
1 Create a new track by choosing Track > New Text Track (or press Command-T).

Note: A corresponding track in the Timeline appears.

2 Choose a font:

a Click either the LiveFonts or Fonts tab in the Media Browser.

LiveType comes with a variety of LiveFonts. Click the Category pop-up menu to access different sets of LiveFonts, including third-party and custom LiveFonts that you can create.



b Select a system font or LiveFont.

c Click the Apply button.

3 Enter text onto the active track by doing one of the following:

- Type into one of the text-entry boxes in the Inspector.
- Cut and paste text from another application into a text-entry box. (Formatting from other applications does not carry over into LiveType.)

Note: If you add text to a track before selecting a font, the new text appears in the Canvas in the default font, size, color, and spacing.

To change the font of an existing text track:

1. Select the text track.
2. Choose a font from the LiveFonts or Fonts tab of the Media Browser.
3. Do one of the following:
   - Click the Apply button.
   - Double-click the font name.

Note: The Apply option does not cross genres of track content. That is, you cannot apply a texture or object to a track that already has text on it. Likewise, you cannot apply a font to a track that contains a texture, object, image, or movie.

Multiple lines of text can exist on a single track. This enables you to create a long text element governed by one set of parameters. If you're designing credits, for example, you can generate the copy in another program, cut and paste it into the text-entry box, and apply the font and attributes along with a scrolling effect.

LiveFonts vs. System Fonts

The two kinds of fonts available in LiveType are very different. LiveFonts have more "life" to them, because they are fully designed animations. System fonts, on the other hand, are more like blank slates you can modify to achieve a wide range of appearances. Both kinds of fonts can be transformed using all the parameters described in this chapter, but keep in mind that some parameters will not make much visual sense when applied to LiveFonts.

Note: The Use LiveFont Defaults button in the Text tab of the Inspector restores the original attributes of LiveFonts, objects, and textures, including timing, color, and other characteristics. This can be a valuable way to revert to the original design of these LiveType elements when you're experimenting with different formatting combinations.

LiveFonts and system fonts also have several practical differences in LiveType:

- You can apply two or more system fonts to the same track, while only one LiveFont can be applied to a track.
- LiveFonts are digital movies, and therefore have timing options you can control through the Timing tab of the Inspector. See "Adjusting the Timing of LiveFonts" on page 60.
- System fonts are always vector-based, while LiveFonts can either be raster-based or vector-based. So it is possible to use LiveFonts at such a large size (in excess of 500 point) that the edges begin to degrade.
- LiveFonts have a much greater impact on previewing and rendering time.

To apply a second system font to text on a track:

1. Create a text track with one or two words on it, in a system font.
2. Select one or more characters on the track by highlighting them in the text-entry box or selecting them in the Canvas.
3. In the Fonts tab of the Media Browser, choose a system font different from the one you've already used.
4. Click the Apply button at the bottom of the Fonts tab.

LiveFont Character Set

The LiveFonts included in LiveType consist of 127 characters, which include all standard English, French, German, and Spanish characters:

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

! # $ % & ( ) , . < > @ + = : ; _ - ? " ' / * 0 1 2 3 4 5 6 7 8 9

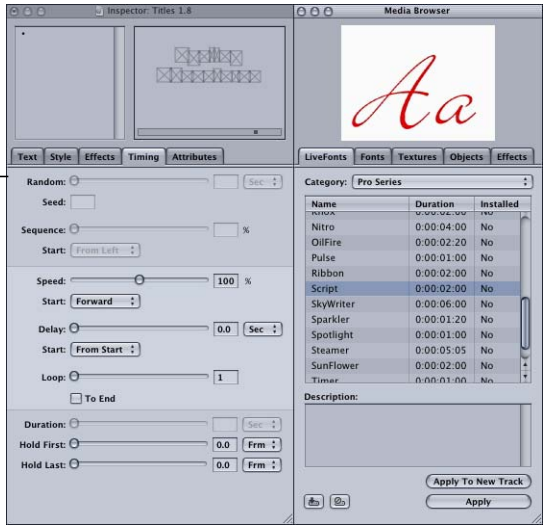
Áá Àà Ââ Ää Çç Èè Éé Êê Ëë Îî Íí Ïï Ññ Ôô Öö Óó ß Üü Úú Ùù Ûû €

To access characters that aren't represented on your keyboard, use the Keyboard Viewer feature, which you can select in the Input Menu pane in the International pane of System Preferences.

Adjusting the Timing of LiveFonts

When you create a system font track, its default duration is always two seconds. LiveFonts, on the other hand, have various durations, as shown in the middle column in the LiveFonts tab of the Media Browser.

Because they are movies, LiveFonts are subject to several timing parameters, available in the Timing tab of the Inspector.



Settings in the Timing tab

Settings for LiveFonts in the Timing Tab

- *Random and Sequence:* Let you apply the LiveFont movie to each character on the track in a different order, with a variable delay between each letter.
- *Speed:* Allows you to play the LiveFont movie more quickly or slowly. Notice that as you change the speed, the duration of the track in the Timeline increases or decreases. Likewise, if you change the duration of the track in the Timeline, the speed parameter changes in the Timing tab.
- *Delay:* Allows you to set the starting time of the track.
- *Loop:* Determines how many times the LiveFont movie plays through. The default setting is 1, meaning that the LiveFont plays one time. A value of 2 means that it plays through twice. The duration of the track doubles with a Loop value of 2, in most cases.

  Note: Several LiveFonts, including Burn Barrel, Cool, and Gutter, take advantage of "segmented animation," which defines beginning, middle, and ending segments of the movie. When you adjust the Loop parameter for these fonts, only the middle segment of the animation is looped.
- *Duration:* Does not apply to LiveFont tracks.
- *Hold First and Hold Last:* Allow you to have the first frame of the LiveFont appear for a designated amount of time before the movie begins to play. Likewise, Hold Last perpetuates the last frame.

Formatting Text

After you've selected the font, you have countless formatting options, available through the Inspector, to change the appearance of the text. As you adjust formatting parameters, the contents of the active track change dynamically in the Canvas, making it easy to see what you're doing. These options can apply to the entire track or to one or more individual characters on a track.

To format any element in the Canvas, you must first select its track.

To select the entire track, do one of the following:

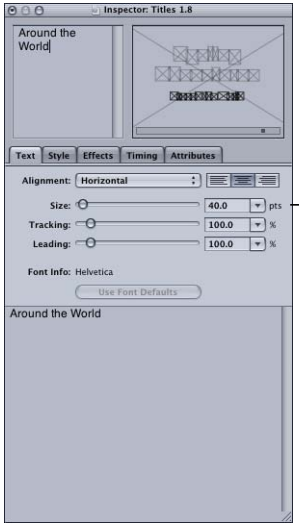
- Click the blue track line in the Canvas.
- Click the corresponding track in the Timeline.

Note: If you click the text itself, a bounding box appears around the character you clicked, and your modifications affect only that character. See "Modifying Individual Characters" on page 77.

After you have selected the track you want to format, use the Text, Style, and Attributes tabs of the Inspector to specify options such as alignment, size, tracking, leading, and color.

Alignment, Size, Tracking, and Leading

In the Text tab of the Inspector, you can adjust the size, tracking, and leading of a text track, as well as its horizontal and vertical alignment. Size values are in points, and tracking and leading values are percentages of the font's default spacing.



Formatting options in the Text tab of the Inspector

- *Alignment:* With the alignment options, text can be set to run horizontally as well as vertically on a track. The Left, Center, and Right Alignment buttons apply to both text orientations. The position of the track itself is not affected by alignment settings. The alignment options are also important to position text appropriately when the track is used with an effect that uses the Slide parameter.

  For example, if you want to slide text onto the screen from left to right, create a track that begins to the left of the Canvas. The text should be left-aligned, so that it starts from the left end of the track, off the Canvas. Then apply the Slide Right effect from the Motion Path category.

- *Size:* Text size is adjusted by dragging the slider, clicking within the slider track, or entering a value in the box to the right of the slider.

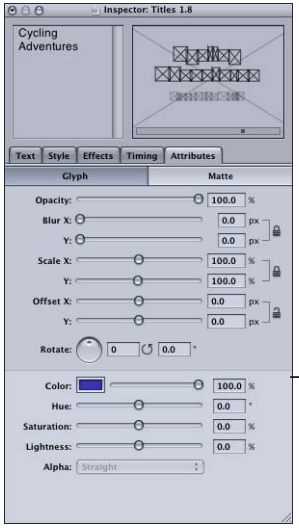
  Note: Because LiveFonts are raster images made up of pixels, their edges will start to degrade at very large sizes, usually 500 point and larger. System fonts are vector-based, and therefore retain their integrity at any size.

- *Tracking:* Character spacing is adjusted with the tracking setting. The value for normal character spacing is 100 percent. A setting of 110 percent adds a modest amount of space between letters. When tracking is set to 0 percent, all characters overlay each other.

- *Leading:* Leading sets the amount of space between the baseline of one line of text and the next. This setting only applies to tracks with more than one line of text, not to the spacing between different tracks. The default leading value is 100 percent. At 0 percent, all lines of text on a track overlay each other.

Color

Color options are in the Glyph pane of the Inspector's Attributes tab. The lower portion of the tab contains the color controls.



Color settings in the Glyph pane of the Attributes tab

- *Color:* The Color parameter replaces existing pixels of color in the selected element with the color indicated in the Color box, while keeping the luminosity values intact. A setting of 100 percent completely replaces the existing colors, whereas a Color setting of 20 percent combines some of the new color with the original. Click the Color box to choose a different color.

  Note: Once you have selected a color, close the Colors window. You need to reopen the Colors window to make any subsequent color choices.

- *Hue, Saturation, and Lightness (HSL):* These three sliders work together to establish the color of the selected element. Hue defines the shift in color value, in degrees, on a 360-degree spectrum. Saturation defines the intensity or vividness of the color, in percentage points. Lightness defines the intensity along the black and white axis, in percentage points.

  The default color of a system font is black, which renders the Hue, Saturation, and Lightness sliders ineffective. HSL and Color are useful for adjusting raster-based elements such as LiveFonts while, as a rule of thumb, system fonts and other vector-based elements should be colored using the Color feature.

- *Alpha pop-up menu:* When you have a clip or imported graphic in a LiveType composition, you can choose a type of alpha channel from this menu. Choose from Premultiply White, Premultiply Black, or Straight.

To change the color of a system font:

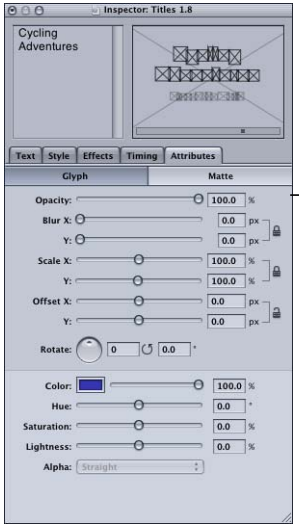
1. Select a track that contains a black system font.
2. In the Attributes tab, in the Glyph pane, click inside the Color box and choose a color from the Colors window (preferably a bright, primary color).
3. Set Color to 100 percent.

   The contents of the track change to this color.

LiveFonts are typically built using primary colors, which means that the Hue, Saturation, and Lightness sliders can be used effectively, in addition to the Color parameter.

Transforming Text

Beyond basic text formatting, LiveType gives you many additional treatments with which to stretch, blur, fade, reposition, and rotate your text. These features are all in the Glyph pane of the Attributes tab.



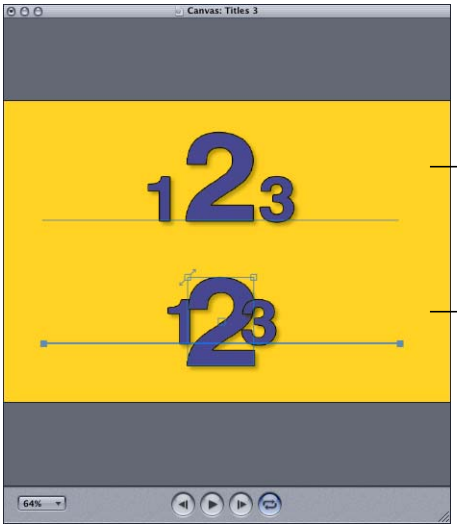
Glyph parameters in the Attributes tab of the Inspector

- *Opacity:* Opacity defines how much of the underlying content shows through. An opacity setting of 0 makes text completely transparent and, in most instances, a setting of 100 makes it opaque. When the blur attribute is off (set to 0), a 50 percent opaque character has sharp edges and is somewhat transparent.

  Note: LiveType allows opacity values to be higher than 100 percent. This can be desirable when you're working with glow parameters (Style tab), or LiveFonts and elements that are blurred or partially transparent. For example, the Charge LiveFont still reveals some of the background at 100 percent opacity. At 150 percent (which you must enter in the opacity field), the font reveals very little background.

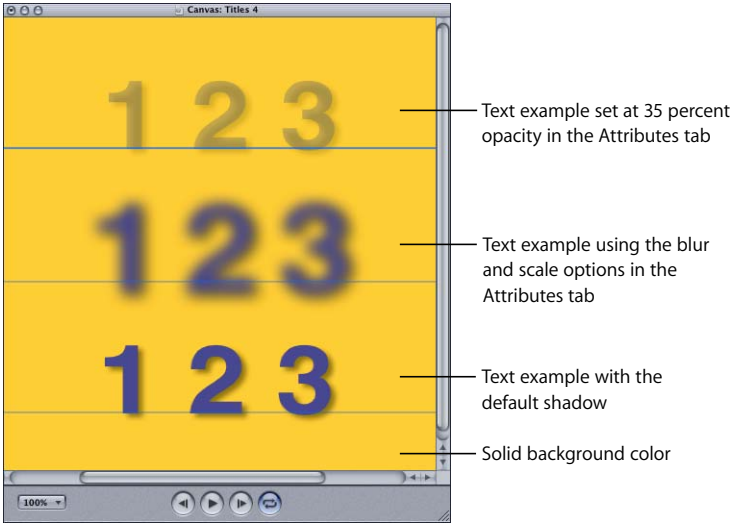
- *Blur:* The blur attribute is similar to opacity, but it fades and expands the outer edges as if the text is out of focus. Blur can be applied equally to the X and Y axes or unequally, for different outcomes. A blur setting of 0 is off, with no blurring effect. The maximum blur setting is 25.
- *Scale:* Scale stretches or squeezes text on the X and Y axes, with 100 being the same size as the original text. Note that scale parameters are applied independently to each character around its pivot point, not to the entire track as a unit.

  Note: Unlike the Scale parameter, the Size parameter in the Text tab scales text from the baseline, and also takes text tracking into consideration.


Canvas: Titles 3
64%
A glyph sized using the Size parameter keeps its original baseline and tracks with adjacent characters.
A glyph sized using the Scale parameter expands around its pivot point without affecting the position of other glyphs on the track.

- *Offset:* Offset repositions the text relative to its original position on the track. An offset of 0 indicates no position shift on that axis.
- *Rotate:* With the rotation dial, you can position an element not only in the 360 degree range, but configure any number of revolutions in the context of an effect.

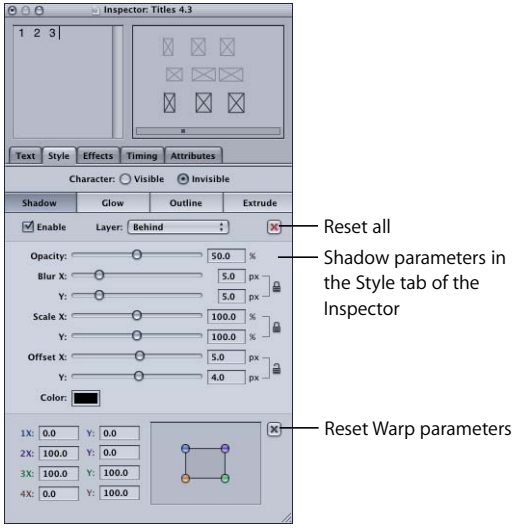
For example, you can set an early keyframe at 45 degrees and set a later keyframe at four revolutions plus 180 degrees. When you play the movie, the element spins clockwise four times plus an additional 135 degrees between those two keyframes. Positive values reflect clockwise motion, and negative values reflect counterclockwise motion. Working with keyframes is defined fully in Chapter 7, "Working With Effects and Keyframe Animation."


Canvas: Titles 4
1 2 3
1 2 3
1 2 3
100%
Text example set at 35 percent opacity in the Attributes tab
Text example using the blur and scale options in the Attributes tab
Text example with the default shadow
Solid background color

Enhancing Text With Styles

The Style tab in the Inspector offers four options for enhancing your text. Styles allow you to add depth and emphasis to text—as well as to objects—mostly by altering the space around each character.

The Shadow, Glow, Outline, and Extrude buttons in the Style tab each reveal the settings applicable to that treatment.

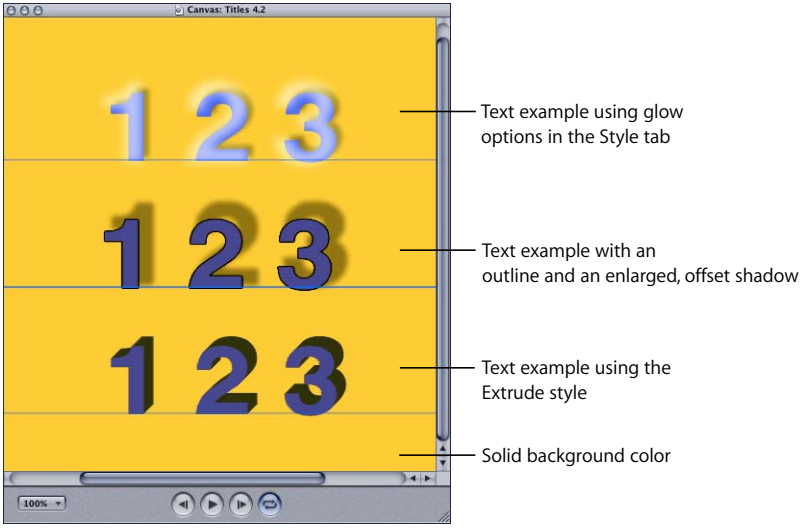


Shadow and Glow

The Shadow and Glow styles are essentially two "flavors" of the same style, using identical parameters to create quite different looks.

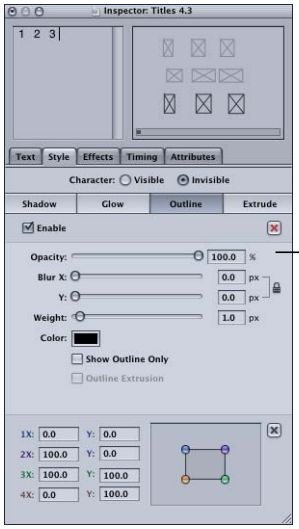
- *Character:* The character setting allows you to make the original element invisible, isolating the style treatment in the Canvas. This can be a helpful way to eliminate clutter as you compose your treatment, or you may choose to leave the original element invisible in the finished product.
- *Enable:* The Enable checkbox allows you to turn a style on or off, without affecting the settings you've established. Again, this is a helpful tool for eliminating clutter as you design, or as you compare different styles and combinations of styles.
- *Layer:* The Layer pop-up menu allows you to place the shadow or glow treatment in front of or behind the original element. The In Front Only setting restricts the shadow or glow effect to the boundaries of the original element, without extending beyond the edges of the letters or object.

- *Opacity:* Opacity sets the intensity of the shadow or glow. An opacity setting of 0 makes the shadow or glow completely transparent, that is, invisible, and completely opaque at 100, with no background showing through. If blur is turned off (set to 0), a 50 percent opaque shadow has sharp edges that match the original element, but whatever lies behind the shadow shows through it.
- *Blur:* The blur parameter is similar to the opacity setting, but fades and expands the outer edges as if the glow or shadow is out of focus. A blur setting of 0 is off, with no blurring effect. The maximum blur setting is 25. Blur can be applied independently to the x and y axes. A y-direction blur creates the look of an up and down motion, even in a static image.
- *Scale:* Scale stretches or squeezes the glow or shadow on the X and Y axes, with 100 being the same size as the original element. Note that scale parameters are applied independently to each character of text on a track, not to the entire shadow or glow as a unit.
- *Offset:* Offset repositions the shadow or glow relative to the original element. An offset of 0 indicates no position shift on that axis.
- *Color:* The Color box lets you select the color of the shadow or glow.
- *Warp:* The warp area allows you to stretch and reshape the shadow or glow by dragging the four corner points, or inserting x and y coordinates for each corner. A simple application of the warp feature is to stretch shadows to represent different lighting situations.


Canvas: Titles 4.2
1 2 3
1 2 3
1 2 3
100%
Text example using glow options in the Style tab
Text example with an outline and an enlarged, offset shadow
Text example using the Extrude style
Solid background color

Outline

This style adds an outline to the contents of any track. See the preceding section for a definition of the opacity, blur, color, and warp parameters. Click the Outline button at the top of the tab to adjust the outline settings.

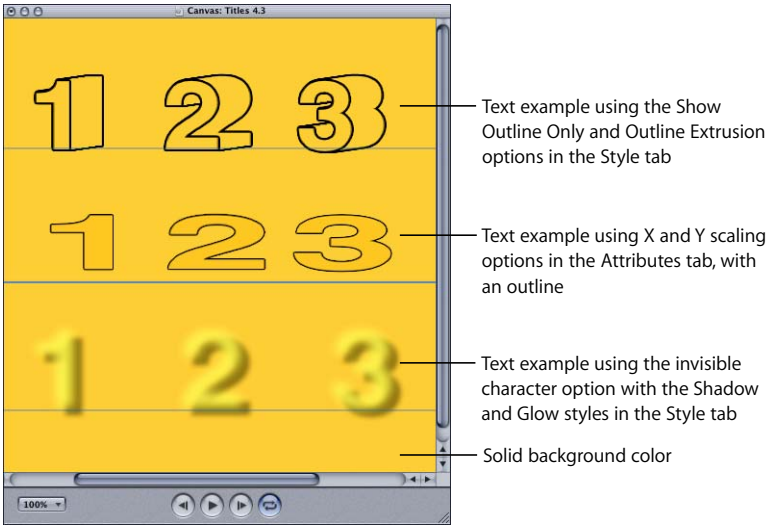


Outline parameters in the Style tab of the Inspector

- *Weight:* The weight value, which defines the thickness of the outline, is set in pixels.
- *Show Outline Only:* Show Outline Only eliminates the original element, creating an outline effect that allows the background to show through.

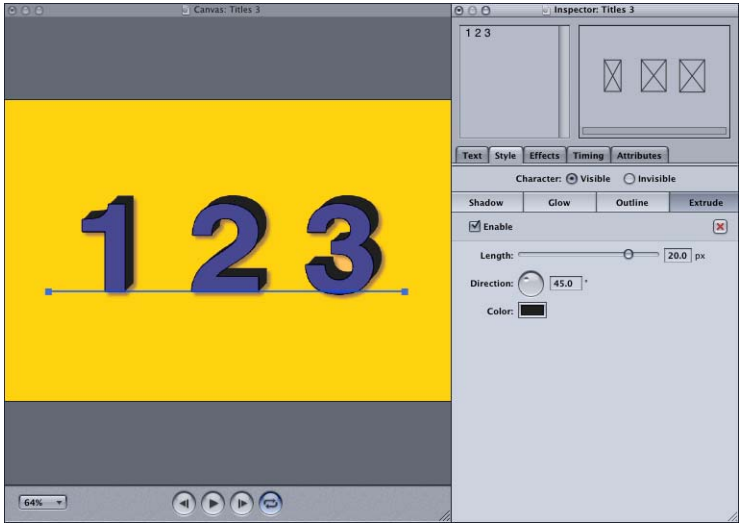
  Note: The Show Outline Only setting is used with the character parameter set to Visible. Otherwise, the outline will be rendered invisible along with the character itself.

- *Outline Extrusion:* When the text has been extruded (see below), selecting this checkbox extends the outline around the extrusion.


Canvas: Titles 4.3
1 2 3
1 2 3
1 2 3
100%
Text example using the Show Outline Only and Outline Extrusion options in the Style tab
Text example using X and Y scaling options in the Attributes tab, with an outline
Text example using the invisible character option with the Shadow and Glow styles in the Style tab
Solid background color

Extrude

Extrude settings consist of direction, length, and color. The direction setting determines which way to "pull" the extrusion and the length determines how far to pull it.



- *Length:* The length value is set in pixels.
- *Direction:* The direction value is set in degrees, from 0 to 360.
- *Color:* The Color box lets you select the color of the extrusion.

Creating a Matte

The matte feature in LiveType allows you to reveal a background element in the area defined by a foreground element, seemingly cutting a hole through any layers in between. When you create a matte, every pixel of the foreground element is replaced by a corresponding pixel in the background element. In other words, a matte acts as a window into another layer.

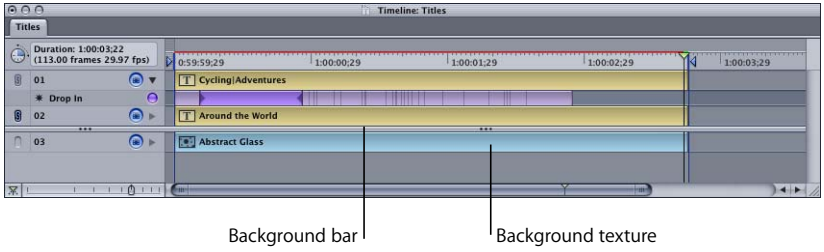
In LiveType, you have three options for creating mattes, available in the Matte pane of the Attributes tab in the Inspector. The first option—Matte to Background—allows you either to fill the foreground element with a background element, or to create an empty window, which can remain transparent when you render your titling movie.

To create a matte with two project elements:

1. Create the background element by placing a texture, image, movie, or object as the bottom layer reflected in the Timeline.

   See Chapter 3, "Adding a Background," on page 41 and Chapter 6, "Working With Objects, Textures, and Imported Elements," on page 79 for information about placing these kinds of elements in the Canvas.

2. Make sure the background is beneath the background bar in the Timeline, and that no other elements are below the background bar.



3. Create a texture or any other element that obscures the background.
4. Create a foreground element, that is, the text or object you want the background to "fill."
5. With the foreground track selected, click the Matte button in the Attributes tab of the Inspector.

6 Choose Background from the "Matte to" pop-up menu.

The background image appears to fill the foreground element.

To create a window into a transparent background:

1 Create a texture or any combination of elements that covers the Canvas.

For information about placing textures and other elements in the Canvas, see Chapter 3, "Adding a Background," on page 41 and Chapter 6, "Working With Objects, Textures, and Imported Elements," on page 79.

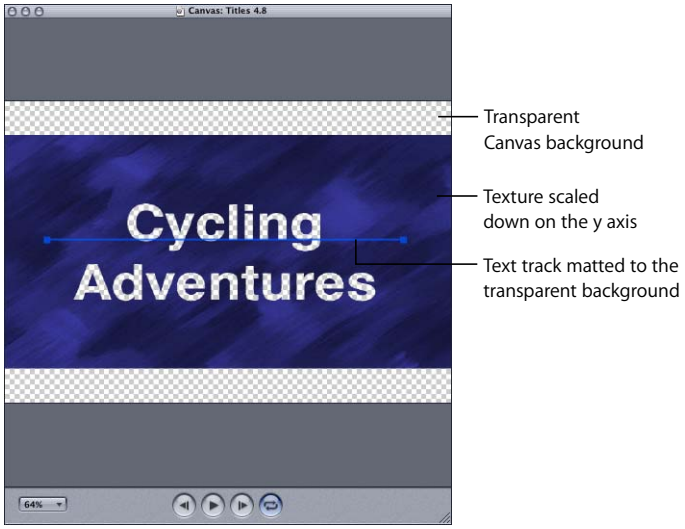
2 Create a foreground element, that is, the text or object that defines the shape of your window.

3 If any elements are below the background bar in the Timeline, drag the bar below all elements.

4 With the foreground track selected, click the Attributes tab of the Inspector, then click the Matte button.

5 Choose Background from the "Matte to" pop-up menu.

The transparent Canvas (or background color if defined in the Project Properties dialog) appears to fill the foreground element.



The other two matte options, Matte to Movie or Image and Matte to Texture, differ because the background doesn't appear as a discrete project element that's reflected in the Timeline. And, there's no need for a layer that the matte has to "punch through." Instead, the track contents are simply filled with the designated image.

These two matte alternatives have scale, speed, and sequencing options in the Matte pane. Scale adjusts the size of the background image, speed adjusts the speed of the background movie or texture, and sequencing allows you to offset the timing of the background for each letter residing on the foreground track.

Note: When you matte a word to a movie or image, LiveType calculates which portion of the image "underlies" each letter, imitating a true window into a lower layer. When you reposition the letters on the track, they retain the same image content. This feature can create an interesting look as you apply movement to the text, particularly when the matte is with a movie.

To fill the track contents with an image or movie:

1. Select a track that contains the text or object you want to fill with an image or movie.
2. Click the Attributes tab of the Inspector.
3. In the Matte pane, choose Movie or Image from the "Matte to" pop-up menu.
4. Locate the file in the Choose Movie or Image dialog, then click Open.

The track contents fill with the background movie or image.

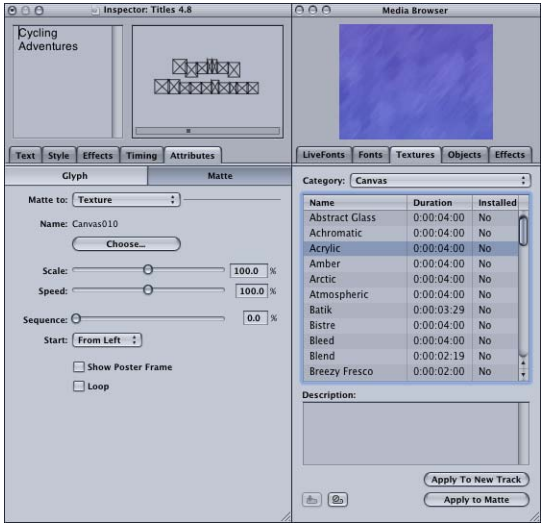
Note: If you want to reveal a specific portion of the image or movie within your foreground element, you may find that this matte option is not appropriate, since you cannot adjust the relative position of the image and your foreground element. If this is the case, you must use the Matte to Background option described above, which allows you to position the two components independently.

To fill the track contents with a texture:

1. Select a track that contains the text or object you want to fill with a texture.
2. Choose a texture from the Media Browser, then click the Apply to Matte button.

   The default texture fills the contents of the active track.

   Note: A variety of mattes is available for use in the Objects tab of the Media Browser from the Category pop-up menu. The blue areas of a LiveType matte define the area where the texture will play back. Text or glyphs from the character palette may also be used as mattes.



Note: Individual characters on the same track can be matted to different textures, movies, or images. See "Modifying Individual Characters," next.

You can get a nice effect by combining the matte function with the outline style.

To fill an invisible element's outline:

1. Create or select a text track.
2. In the Style tab of the Inspector, click the Visible button.
3. In this case, make sure the Enable checkbox is deselected for the Shadow, Glow, and Extrude styles.
4. Click the Outline button in the Style tab, and select the Enable checkbox.
5. Select the Show Outline Only checkbox, and increase the weight of the outline, so it's fairly thick.
6. Choose a texture to fill the outline, then click the Apply to Matte button.

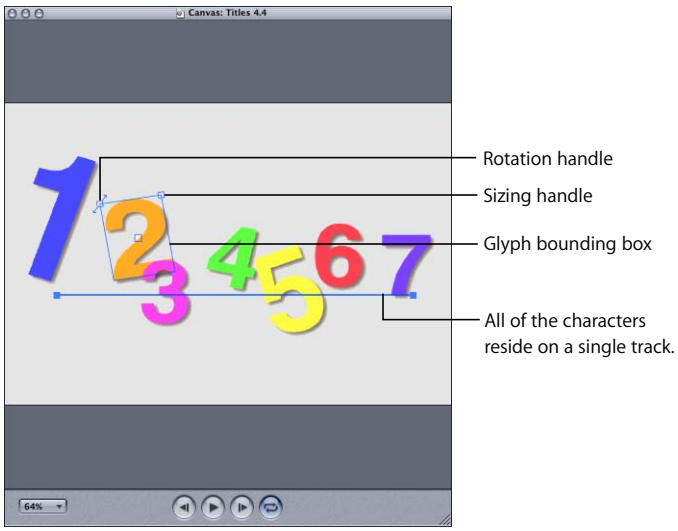
   The outline is now filled with the texture.

Modifying Individual Characters

You can also assign attributes to individual characters on a track. All of the attributes discussed in this chapter can apply to only one, or more than one, character on the same track.

This is a powerful option in LiveType, particularly because it allows you to reposition individual characters, or glyphs, without breaking their relationship to the track.

For example, with individual character adjustments, you could make one word in a phrase float above the track, expand and glow, and then return to the track. This would take only a few moments to animate. Or you could make a series of characters do similar transformations, one after the other.



To modify one or more characters on a track, try the following steps:

1. Select or create a track that contains some text.
2. Select one or more letters by doing one of the following:
   - Select one of the letters in the Canvas and, to modify more than one character at a time, hold down the Shift key while selecting additional, contiguous letters. A bounding box appears around the selected letter(s), with a handle in each of the upper corners.
   - Highlight one or more letters in one of the text-entry areas of the Inspector. Bounding boxes appear around the selected letters in the Canvas.
   - Marquis-select one or more letters in the Canvas by dragging a box with the cursor. Any letter that touches the marquis area is selected, and reveals its bounding box.
3. Click inside the bounding box and drag the letter anywhere in the Canvas.
4. Drag the upper-left handle to rotate the letter.

5 Drag the upper-right handle to change the letter's size.

Note: You can restore a letter to its original size and placement by choosing Layout > Reset Position.

6 Change the letter's attributes in the Attributes tab or the Style tab of the Inspector.

7 Click in the Canvas away from the track.

The bounding box around the character disappears, but the track is still selected.

8 Reposition the track in the Canvas and modify its attributes.

Note: These adjustments affect the entire track, including the letter you've just modified.

Disabling Fonts in Mac OS X

In Mac OS X v10.3, you can use the Font Book application to disable fonts. However, LiveType requires that certain fonts—Geneva and Helvetica—are always available, so these two fonts should not be disabled. If you disable these fonts, you may experience unpredictable behavior in LiveType.

Working With Objects, Textures, and Imported Elements

6

Titling compositions often center around words, but all kinds of additional elements are used to frame, enhance, and accompany them.

For the purpose of this manual, these elements fall into three categories:

- Objects included with LiveType
- Textures included with LiveType
- Static images and movies originating from other sources

All of these elements are modified and moved around in the Canvas in the same way. They do not rest on a linear track, as text does, unless you add multiple, identical objects to a track (see "Creating Strings or Stacks of Elements" on page 84). Instead, when selected, they display a bounding box, like a single character selected on a text track. At the upper-right and upper-left corners of the bounding box are scale and rotation handles.

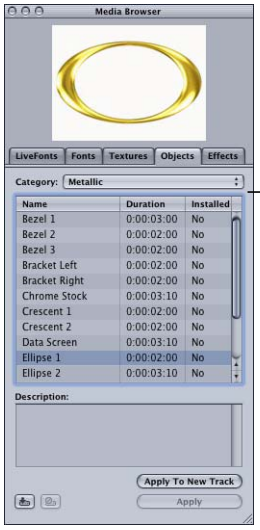
Working With LiveType Objects

Objects in LiveType are graphical elements with an alpha channel, designed to frame or emphasize text. Most of them are animated and, much like LiveFonts, can be sized, rotated, colored, and stretched. You can add a shadow, glow, or an extrusion. And you can apply effects to them.

Objects placed in the Canvas are represented as tracks in the Timeline, like any other titling element.

To add a LiveType object to the Canvas:

1 Click the Objects tab in the Media Browser.



LiveType objects available in the Media Browser

2 Browse the categories of objects displayed in the Category pop-up menu, and select an object in the Name column of the Objects tab.

3 Click the Apply To New Track button.

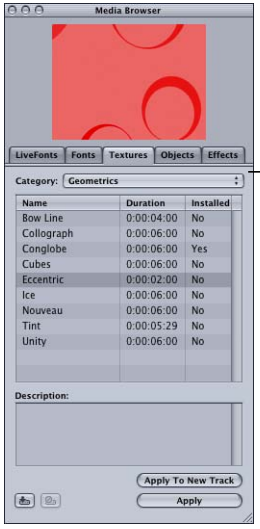
The object appears in the Canvas, and a corresponding track appears in the Timeline.

Working With LiveType Textures

Textures in LiveType are colorful animated patterns that can be used as full-screen or partial backgrounds, or as animated fills when used with the matte function, described in Chapter 5, "Working With Text," on page 57. Textures are versatile, and can be transformed in the same ways an object is transformed, particularly if the texture is reduced in size to take up only a portion of the Canvas.

To add a texture to the Canvas:

1 Click the Textures tab in the Media Browser.



Textures available in the Media Browser

2 Browse the categories of textures displayed in the Category pop-up menu, and select a texture in the Name column of the Textures tab.

3 Click the Apply To New Track button at the bottom of the Textures tab.

The texture fills the Canvas, and a track appears in the Timeline, just above the background bar.

Importing Graphics, Images, and Movies

Graphical elements in a wide range of formats can be incorporated into a LiveType project. Scanned images, photos, and illustrations, as well as movies and animations, can be used as part of your titling composition. And, like objects and textures, they can be modified and placed in numerous ways.

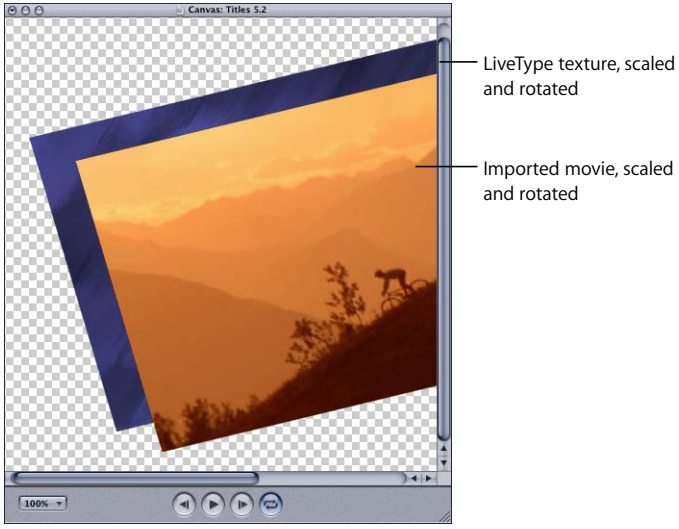
LiveType can import elements in a variety of formats.

LiveType import formats			
AVI	JPEG	PICT	QuickTime movie
BMP	MPEG-2 and MPEG-4	PLS	SGI
DV	Photoshop	PNG	Targa
GIF	PICS	QuickTime image file	TIFF

To import a graphic, image, or movie:

1. Choose File > Place.
2. Locate the file, then click Open.

The element appears in the Canvas, and a corresponding track appears in the Timeline.



Transforming Objects, Textures, and Imported Elements

Imported elements can be positioned, changed, and animated as easily as text. A photo can be made to bounce around the Canvas, fade in and out, grow and shrink, or take on a purple hue, for example.

Sizing and Positioning Objects, Textures, and Imported Elements

When you first place a movie or texture in the Canvas, its position is locked by default. These types of elements are frequently used as full-screen background elements that don't need to be sized or moved. However, you can unlock them easily.

To unlock the position of a texture or imported movie:

1. Select the track you want to unlock. (Sometimes this is easiest to do in the Timeline.)
2. Choose Layout > Lock Position.

   The checkmark next to Lock Position disappears, and the bounding box handles on the element are now active.

When you select a non-text element in the Canvas, a bounding box appears around it, the same as an individual character on a text track. If you select a full-screen element, it's easier to see the bounding box if you zoom out in the Canvas.

To resize, rotate, and reposition a non-text element in the Canvas:

- Drag the bounding box and its upper-left and upper-right handles.

Non-text elements can also be transformed with any of the attributes available to text characters: shadow, color, blur, and so on.

Creating Strings or Stacks of Elements

In a way, LiveType looks at textures, objects, and imported elements as special kinds of glyphs, or text characters. More to the point, individual elements are treated like fonts whose character set consists of only one glyph.

This allows you to do an unusual thing in LiveType: You can create strings, or multiple copies, of these elements on what, for all intents and purposes, amounts to a text track. Anything you can do with one letter of a text font, you can do with objects, textures, and imported elements.

Note: Objects cannot, however, be formatted as multiple lines on one track.

To create a string of elements on one track:

1. Add an object, texture, or imported element to the Canvas.
2. Make the object a reasonably small size to duplicate in the Canvas:
   a. Click the Attributes tab of the Inspector, then click the Glyph button.
   b. Make sure the lock icon next to the Scale sliders is closed, or locked, for proportional scaling. If it appears to be unlocked, click the icon to lock it.
   c. Adjust the Scale sliders, or enter a value in one of the Scale fields.
3. Click inside the text-entry box in the upper-left corner of the Inspector. Note that a single bullet is in the window, representing the object as a single glyph.

4 With the blinking cursor in the text-entry box, press the Space bar or type any key.

A second bullet appears in the text-entry box, and now two identical objects are on a linear track in the Canvas. Add as many objects as you like.

5 Adjust the tracking and alignment in the Text tab of the Inspector, and any other attributes that you might apply to a string of letters, including formatting individual elements on the track separately.

Changing Attributes and Styles

Just as non-text elements can be treated as glyphs, they can take on all of the same styles and attributes available to text. Chapter 5, "Working With Text," on page 57 describes all the transformations available in the Inspector.

You might want to try the following for a digital image or movie:

- Reduce the size of the image, position it in the Canvas, and rotate it 20 degrees, using the Scale, Offset, and Rotate controls in the Glyph pane of the Attributes tab in the Inspector.
- Add a shadow, outline, or extrusion to the image, using Style functions.
- Shift the color of the image using the Color controls in the Glyph pane of the Attributes tab in the Inspector.
- Apply a preset effect to the image, or animate it yourself by building your own effect. Chapter 7, "Working With Effects and Keyframe Animation," on page 87 explains how to do this.

Other imported elements—logos, line art, or simple graphical elements—are even more versatile. They might lend themselves to a matte treatment, glow or blur, or an outline with the original element rendered invisible. There's no end to the possibilities.

Replacing Media in a Track

You can easily replace any movie or image in a track on the Timeline at any time.

To replace any movie or image with new content:

1 Control-click the chosen track, then choose > Reconnect Media from the shortcut menu.

2 Navigate to the new file in the Open dialog, then click Open.

The existing media is replaced with a new movie or image.

Working With Effects and Keyframe Animation

7

Effects are what make your Canvas elements move and transform. They are "packages" of animation, encapsulating the parameters that govern motion and timing, as well as an element's attributes in any given frame.

The key ideas about effects are as follows:

- All motion and transformations built into your titling movie are controlled by effects, whether you create your own or take advantage of the preconfigured effects in LiveType.
- Effects are applied to tracks. They appear in the Timeline as bars underneath the track they're applied to.
- More than one effect can be applied to the same track, even at the same time.
- You can change an effect once it is applied to a track, and you can save the modified effect so it's available to use on other tracks and in other projects.
- When a track and an effect have conflicting parameters, the effect parameter overrides the track parameter. For example, if an effect specifically turns the Glow style off, the track's glow settings are irrelevant.
- When a track and an effect have complementary parameters, the two values are combined. For example, if a track has an opacity of 50 percent, applying an effect with 50 percent opacity will result in an opacity of 25 percent in the Canvas, or half of the track's 50 percent opacity.
- You can edit or build an effect outside of the LiveType interface. Instructions for writing EffectScript code are in Appendix B, "Creating and Editing EffectScripts," on page 135.
- Effects can be applied to individual characters on a track and managed from the Effects tab in the Inspector.

Preset Effects

Following is a table listing all of the 41 available preset effects found in LiveType. These effects are located in the Effects tab of the Media Browser.

LiveType effects				
Caricature • Baffle • Bounce Track • Bounce • Bouncy • Elastica • Quick Twist **Fades** • Cluster • Foreground • Pile Up	**Fantasy** • Chatter Out • Dispersion • Expand • Ideas • Invent • Send Off • Z Space	**Glows** • Blue Light • Combustible • Exhale • Follower • Impression • Light Beam In • Light Beam Out • Morph • Peace • Rising Sun • Slider • Spectral • Zapper	**Grunge** • Text Static **Mechanical** • Assembly • Buzz Saw • TV Off **Motion Path** • Departing • Escape • Parting • Random Drop • Slide Hang • Vent	**Shadows** • Pit Stop **Zooms** • Viewpoint

Applying Preset Effects

The preset effects in LiveType add personality to your titles and can be used to set the tone of your composition. Browse through the available effects in the Media Browser to get a sense of what they can do.

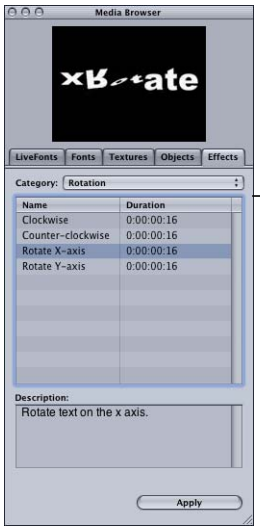
To apply a preset effect to a track:

1. Create a track that contains text or any other kind of element. Make sure it is the active track.
2. Click the Effects tab in the Media Browser.

   The Category pop-up menu reveals the categories of installed effects, corresponding to the subfolders on your computer located at /Library/Application Support/LiveType/Effects.

3 Choose an effect in the Name column of the Effects tab.

The Browser preview depicts how the effect works, the Duration column shows the default effect length, and the Description field contains notes about how best to apply the effect.



The Effects tab of the Media Browser

4 Do one of the following:

- Select the effect name and click Apply.
- Double-click the effect.
- Drag the effect into the Effects tab of the Inspector.

When you apply an effect, a bar appears under the active track in the Timeline, labeled with the effect name.

If the effect includes motion, you immediately see the movement reflected in the Live Wireframe Preview in the Inspector.

Depending on the position of the playhead in the Timeline, the Canvas itself may or may not change noticeably. Move the playhead to see how the track elements change at different points in time, or click the Play button in the Canvas to view a RAM render.

The effect also appears in the Effects tab of the Inspector. The Effects tab shows a list of the effects that have been applied to a track. The stack order does not affect the sequence, or timing, of any effect.

To disable an effect:

- Click the Enable/Disable button in the Timeline next to the effect.

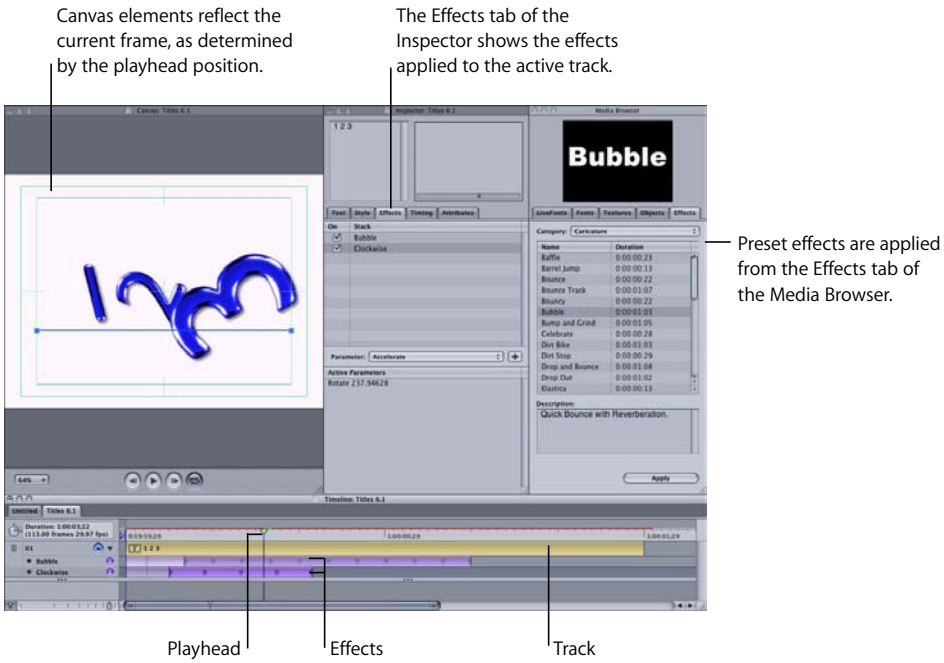
To disable an effect for one or more glyphs on a track:

1. Select the track.
2. Select the character(s) that you *don't* want the effect to apply to, either by highlighting them in the text-entry box or selecting them in the Canvas.

   Because you cannot select noncontiguous characters at the same time, you may have to do these steps more than once.
3. In the Effects tab of the Inspector, deselect the checkbox next to the effect you want to turn off for the selected characters.

Adjusting the Timing of an Effect

All of the timing parameters applicable to tracks that contain LiveType media elements also apply to effects.


Canvas elements reflect the current frame, as determined by the playhead position.
The Effects tab of the Inspector shows the effects applied to the active track.
Preset effects are applied from the Effects tab of the Media Browser.
Playhead
Effects
Track

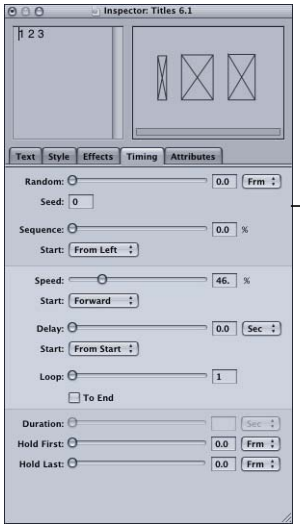
Just as you can drag a track in the Timeline to adjust its starting point and duration, you can do the same with an effect. Settings in the Timing tab of the Inspector determine how an effect is applied to each letter on a track, how fast it runs, and how many times the effect repeats.

The Timing tab includes an array of options that allow you to orchestrate the movement of your Canvas elements. Timing tab settings apply to the effect that is selected in the Timeline.

To adjust an effect's timing parameters:

1. In the Timeline, select an effect that has been applied to a track.
2. Click the Timing tab in the Inspector.

   The current timing parameters for the selected effect are reflected.



The Timing tab contains the following timing options:

- *Random:* A randomized effect treats each character on a track separately, as opposed to applying the effect parameters to the entire track at once. With this setting, the effect transforms each character in a random order, separated by the designated number of frames or seconds. The Seed field allows you to select alternative random orders, up to 255, if the order doesn't look quite right.
- *Sequence:* A sequenced effect starts by transforming one character, then moves to the next adjacent character, and so on. A sequence value of 0 indicates that the effect plays simultaneously for all characters. With a value of 25, the effect begins to transform the first character, then when the effect is 25 percent into the transformation, it begins to transform the next character, and so on. The Start pop-up menu below the Sequence slider defines the direction from which the sequence begins.
- *Speed:* You can change the speed of an effect, as a percentage of its default speed. Increasing an effect's speed decreases its duration. The Start pop-up menu below the Speed slider allows you to run the effect in reverse.
- *Delay:* The delay setting sets the start or end time of the effect in relation to the beginning or endpoint of the track. Using this setting is an alternative to positioning an effect directly in the Timeline.

- *Loop:* The loop setting determines how many times the effect will repeat. A loop value of two doubles the duration of the effect. The To End checkbox makes the effect loop continuously for the duration of the track.
- *Duration:* This setting governs the duration of a track containing system font text or any other static element. The duration of effects, as well as tracks containing dynamic elements such as a movie clip or LiveFont, is adjusted with the Speed slider.
- *Hold First:* With this option, the parameters for the first frame of an effect are maintained for the designated period of time before the effect kicks in. For example, if you want a track to fade in after two seconds, you can choose Hold First for two seconds, during which time the track is invisible (or 0 percent opaque), before the Fade In effect begins.
- *Hold Last:* This works the same way as Hold First, but at the end of the effect, to extend the final-frame parameters of the effect for a designated amount of time.

To adjust the timing of an effect in the Timeline, do one of the following:

- Drag in the middle of the effect bar (but not on a keyframe) to position the effect without changing its speed. This affects the effect's Delay value, as seen in the Timing tab of the Inspector.

  Note: You can position an effect so that it extends beyond the boundaries of the track, in which case the extraneous effect parameters aren't used.

- Drag either edge of the effect to adjust its speed. An effect that is shorter in duration runs through its motions more quickly.

  Resizing from the left edge of an effect whose Delay Start value is set "From Start" changes the effect's speed and delay. The same is true when resizing the right edge of a "From End" effect.

Repositioning Groups of Effects Within a Track to Adjust Timing

If you have multiple effects in a single track, you can move them in unison to adjust their timing.

To reposition groups of effects within a track:

- In a track with multiple effects, hold down the Option key as you drag any single effect.

The effects move up and down the Timeline in unison. All effects in the track maintain their relative positions but occur at an earlier or later point in time.

Changing the Order of Effects

In a track with more than one effect, you can change the order (precedence) of an effect by dragging it vertically. If the effect has timing information, its position in the new track may be adjusted.

To change the order an effect:

- Drag the effect up or down within the track.

The order of the effects has now been changed.

Duplicating Effects and Tracks

You can easily duplicate effects and tracks, including duplicating an effect from one track to another.

To duplicate an effect or track:

In the Timeline, Option-drag an effect or track to the new location or track. Holding down the Option key while dragging an effect makes a copy of the effect in a new effects track.

Modifying a Preset Effect

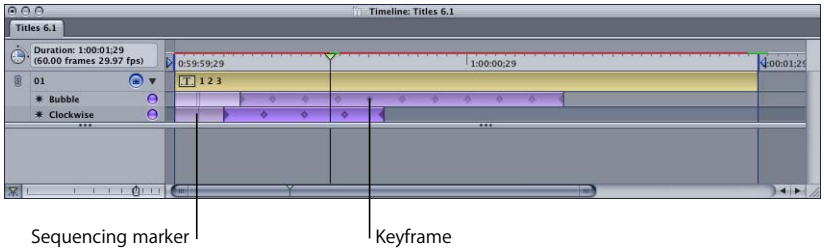
In addition to adjusting the timing parameters of an effect, you can change what the effect actually does; that is, how it transforms the track it's applied to.

Altering an effect used in your project does not alter the original preset effect. Once you have applied the effect, you are free to adjust it, and the changes you make are saved as part of your project.

Keyframes and Sequencing Markers

Computer animation is based on the concept of keyframes. Animators define a graphical element's parameters—position, color, size, shape, and so on—at periodic intervals, and the software interpolates the parameters for each frame in between.

Keyframes are represented in the Timeline as diamond-shaped markers in effects. When you select a keyframe, the playhead moves to that frame, and the Canvas reveals the state of the project elements at that point in time.



To view the parameters defined by a keyframe:

1. Select the keyframe in the Timeline.
2. Click the Effects tab in the Inspector.

   The parameters defined by that keyframe appear in the Active Parameters window.

The Clockwise effect, for example, only has one active parameter for its keyframes. Regardless of the track attributes or other effects that may affect the track, the Clockwise effect is concerned only with making the letters on the track spin. The sequence timing parameter for the effect applies the rotation to each character on the track one after the other, from left to right.

Sequencing markers, vertical lines in the light purple area of an effect bar, show when each glyph starts to be acted on by the effect. The number of sequencing markers, including the first frame of the effect and the beginning keyframe of the effect (depicted by half diamonds), always equals the number of glyphs on the track.

Note: Not all effects are sequenced or randomized; therefore, not all effects have sequencing markers.

Adjusting Keyframe Parameters

To change what an effect does, you have to alter its keyframes. While you can change an effect's parameters through the Effects tab by entering numeric values, it is usually easier to make changes in a more visual way, using the full LiveType interface.

To adjust a keyframe by changing parameters in the Inspector:

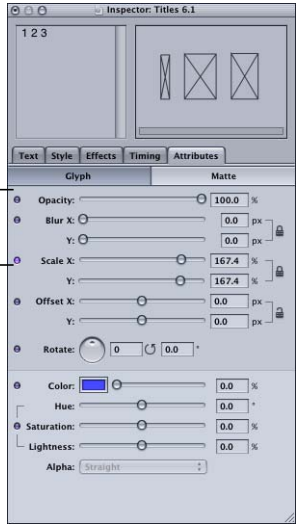
1 Select a keyframe in the Timeline.

The playhead moves over the keyframe and the Canvas reflects the appearance of the composition at that frame.

Note: If you change an effect parameter when the playhead is not over a keyframe, a new keyframe is added at the current playhead position.

2 Adjust the attributes of the track.

The LED indicators in the Inspector indicate which attributes can be changed in the context of an effect—they are all in the Text, Style, and Attributes tabs of the Inspector.



LED indicators appear when an effect is selected.

3 Click the Play button in the Canvas to see the results of your modification.

To adjust a keyframe by changing parameters in the Canvas:

1. Select a keyframe in the Timeline.
2. Click a letter or the object to reveal its bounding box.
3. Manipulate the selected glyph to change its position, rotation, or scale.

   When you drag the glyph, the entire word moves with it, and a motion path with small incremental dots appears. Each dot on the motion path represents the pivot point of the selected letter at every frame of the movie. Notice that if you select a different letter, a slightly different motion path appears, representing the center position of that letter for each frame.
4. Click the Play button in the Canvas to see the results of your modification.

LED Indicators in the Inspector

When you select an effect or keyframe, the Text, Style, and Attributes tabs in the Inspector reveal small round lights, or LEDs, to the left of all attributes that can be modified in an effect. The LEDs serve three purposes:

- They indicate which parameters in the tab are active in the selected effect, allowing you to see the pertinent values at a glance.
- They allow you to activate a new parameter for an effect.
- They let you apply an attribute evenly across all keyframes in the effect. This is a very useful feature, as it lets you make global changes to an effect without having to select and modify each keyframe.

To apply an attribute evenly across all keyframes in an effect:

1. Select the effect.
2. Change an attribute in the Text, Style, or Attributes tab.
3. Hold down the Option key and click the LED indicator next to the attribute you just changed.

Active Parameters

The Active Parameters area of the Effects tab of the Inspector is a valuable resource for identifying which parameters are active in an effect, and what their values are at any point in time, as defined by the playhead position.

Active parameters are displayed with the values associated with the current frame. Parameter variables are further described in Appendix B, "Creating and Editing EffectScripts," on page 135.

To change a parameter value in the Effects tab:

1. Select a keyframe.
2. Double-click a parameter in the Active Parameters stack.
3. Enter a value in the parameter dialog, then click OK.

Note: If you change a parameter when the playhead is not at a keyframe, a keyframe is added to the effect at the playhead position.

The Parameter pop-up menu lists all of the keyframe parameters.

To add a new parameter to the Active Parameters stack of an effect:

1. Select the effect.
2. Do one of the following:
   - Click the LED next to the parameter in the Text, Style, or Attributes tab of the Inspector. The selected LED illuminates.
   - In the Effects tab of the Inspector, make a selection from the Parameter pop-up menu and click the + button. The parameter appears in the Active Parameters stack.
   - Change the parameter for one keyframe in the Text, Style, or Attributes tab of the Inspector.
   - Add Offset, Rotation, or Scale to the stack by modifying a glyph of the active track using the bounding box handles or dragging the glyph to a new position.

Example: Modifying an Effect

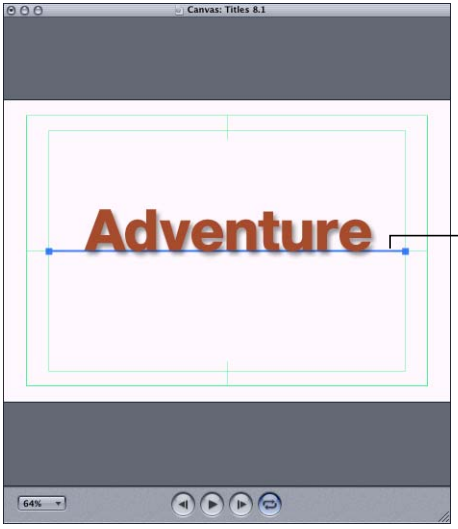
The following example shows how easy it is to change an effect and create a dramatically different look. In this case, you want to add motion to the Fade In effect.

1 Set up a new project as follows:

a Choose File > New.

b Type "Adventure" into one of the text-entry boxes in the Inspector to add the word to the track.

c Apply any system font to the track, for simplicity.



For this example, start with a simple text track in a system font.

d Set the Render Selection Out Point by positioning the playhead at one second, then pressing the O key.

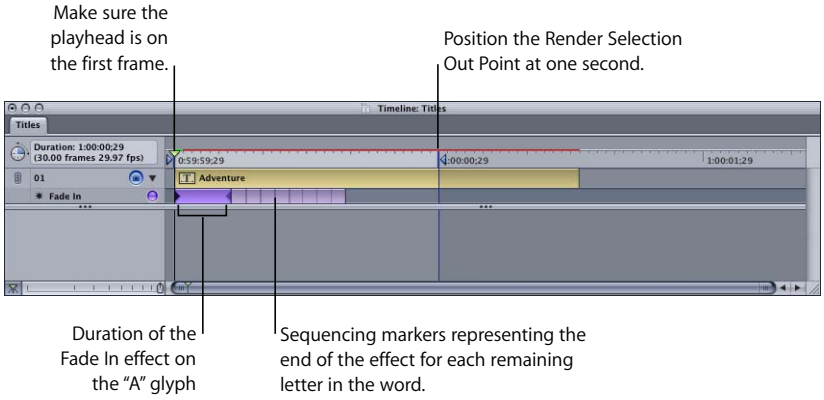
2 Apply the Fade In effect to the track, which is in the Fades category in the Effects tab of the Media Browser. Notice the following changes:

- The effect is immediately represented in the Live Wireframe Preview of the Inspector.
- If your playhead is on the first frame, the text disappeared in the Canvas when you applied the effect. That's because the Fade In effect begins with an opacity of 0.

3 If your playhead is not at the first frame, move it there.

4 In the text-entry box of the Inspector, highlight the "A" of Adventure.

Even though the text is invisible in the Canvas, a bounding box appears, allowing you to adjust the glyph. Notice also that the first keyframe of the effect is now at the first frame, with the sequencing markers behind, representing the other letters in the word.

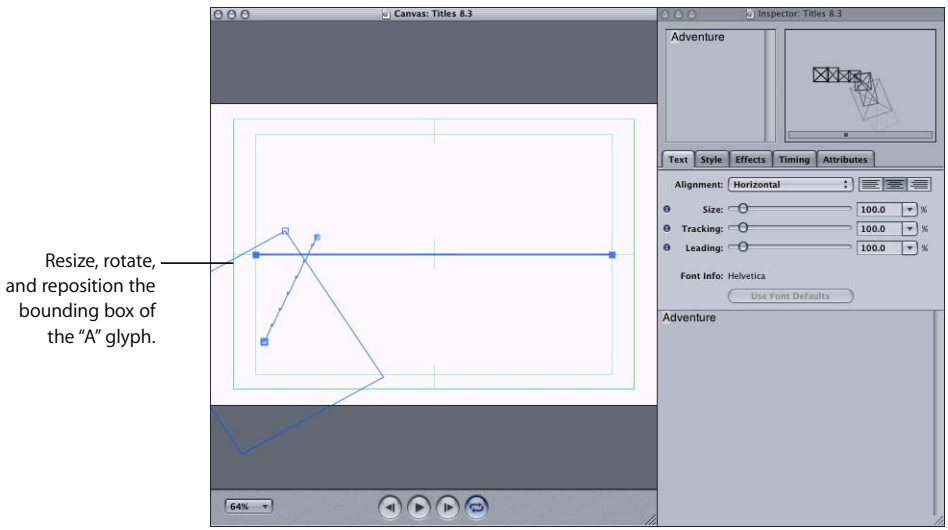

Make sure the playhead is on the first frame.
Position the Render Selection Out Point at one second.
Timeline: Titles
Titles
Duration: 1:00:00:29
(30.00 frames 29.97 fps)
0:59:59:29
1:00:00:29
1:00:01:29
01
Adventure
Fade In
Duration of the Fade In effect on the "A" glyph
Sequencing markers representing the end of the effect for each remaining letter in the word.

5 Modify the glyph in the Canvas as follows, and watch the results in the Live Wireframe Preview as you go:

a Drag the sizing handle in the upper-right corner of the bounding box to make the glyph quite large, about one-third of the width of the Canvas.

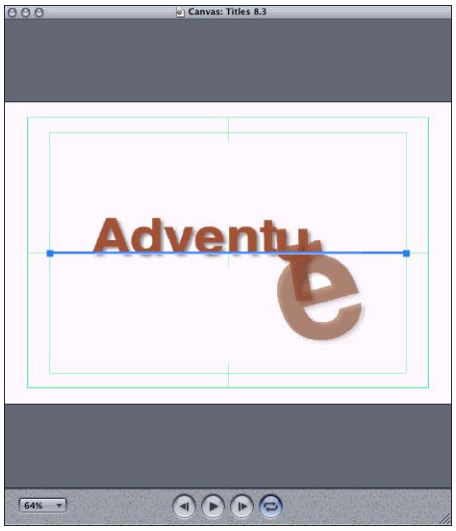
b Using the rotation handle in the upper-left corner of the bounding box, tilt the glyph about 45 degrees counterclockwise.

c Drag the glyph so its pivot point is in the lower-left corner of the Canvas, allowing part of the glyph to extend off the Canvas.



The stack (in the Effects tab of the Inspector) has been changed automatically. The Scale, Rotate, and Offset parameters now apply to this effect, in addition to the original Opacity parameter.

6 Click the Play button in the Canvas or press the Space bar to play a RAM preview.



Moving, Deleting, Adding, and Copying Keyframes

The more you experiment with effects, the more you'll want to create and change them to suit your own tastes. For example, you can change the placement of keyframes in an effect to make it play out differently. Or you can add or delete a keyframe entirely.

To move the position of a keyframe in the Timeline:

- Drag the keyframe marker left or right within the effect bar.

To delete a keyframe:

1 Select the keyframe you want to remove.

2 Choose Track > Delete Keyframe.

Note: If you select a keyframe and press the Delete key, the entire effect is deleted.

To add a keyframe to an effect:

1. Select the effect you want to add a keyframe to.
2. Drag the playhead to the frame where you want to insert a keyframe, or click that frame's position in the frame ruler.
3. Do one of the following:
   - With the playhead in position and the effect selected, choose Track > Add Keyframe (or press Command-K).
   - Change any parameter in the Text, Style, or Attributes tab of the Inspector, or adjust a glyph of the active track using the bounding box handles or dragging the glyph to a new position.

   A keyframe marker appears in the effect bar.

To copy a keyframe:

1. Select the keyframe you want to copy, then choose Edit > Copy.
2. Position the playhead over the frame where you want to insert the duplicate keyframe, then choose Edit > Paste.

You can copy and paste keyframes from other effects, even in other projects.

Copying and Pasting Keyframes, Effects, and Tracks Between Projects

You can easily copy and paste keyframes, effects, and tracks from one project to another.

To copy and paste a keyframe between projects:

1. Open the project you want to copy the keyframe from.
2. In the Timeline, do one of the following:
   - Select a keyframe, then choose Edit > Copy Keyframe (or press Command-C).
   - Control-click the keyframe, then choose Copy Track, Copy Effect, or Copy Keyframe from the shortcut menu.
3. Open the second project, and in the Timeline, position the playhead where you want the new keyframe to appear.
4. Do one of the following:
   - Choose Edit > Paste (or press Command-V).
   - Control-click the track, then choose Paste from the shortcut menu.

The keyframe is copied into the second project.

To copy and paste effects or tracks between projects:

1. Open the project you want to copy from.
2. In the Timeline, do one of the following:
   - Select the effect or track, then choose Edit > Copy (or press Command-C).
   - Control-click the effect or track, then choose Copy Track or Copy Effect from the shortcut menu.
3. Open the second project, click in the Timeline, then do one of the following:
   - Choose Edit > Paste (or press Command-V).
   - Control-click a track, then choose Paste from the shortcut menu.

   The new effect or track is copied into the second project.

Renaming and Saving Modified Effects

When you change an effect in a LiveType project, it no longer has the same attributes as the preset effect accessed through the Media Browser. You might even use different versions of the same preset effect in one project. There are two ways to keep track of these changes: rename effects within your project to distinguish them from the original preset effects, or save them as new effects you can use any time.

To rename an effect within a project:

1. Select the effect or the track it's applied to.
2. Click the Effects tab of the Inspector.
3. Select the effect whose name you want to change, and edit the name.

   The new name is reflected in the Timeline.

To save a new or modified effect:

1. Select the effect.
2. Choose Track > Save Effect.
3. In the Save Effect dialog, name the effect and select the category you want to save it into, or create a new category.

   The effect appears in the Effects tab of the Media Browser.

Note: For the Media Browser to display a preview of the saved effect, you must create a preview clip at 160 x 120 pixels, and give it the same name as the effect with the appropriate extension. Preview clips can be in any QuickTime format, but if you're planning to create a lot of these, MPEG-4 is a good format choice, as it saves considerable disk space. Save preview clips into the Effects folder located at /Library/Application Support/LiveType, where saved effects are stored.

Creating a New Effect From Scratch

Sometimes the most efficient way to create the effect you want is to start from scratch, as opposed to changing an existing one.

The workflow goes like this:

1. Decide, roughly, what you want to animate and how you want it to move and transform.
2. Create a track that contains the element you want to animate, preferably in its first-frame state.
3. Configure the timing of the track—its starting frame and duration.
4. Add a new, blank effect to the track.
5. Add keyframes to the effect, and adjust the parameters for each.
6. Save the effect, if desired, for use with other tracks or in other projects.

To add a new, blank effect to a track:

1. Select the track you want to add the effect to.
2. Choose Track > New Effect (or press Command-E).

   A new effect appears in the Timeline below the active track.
3. Name the new effect, if you want, by double-clicking the New Effect name in the Effects tab of the Inspector.

Example: Creating a New Effect

The following example demonstrates how to build a new effect. In this case, part of the text on a single track will bounce around the Canvas.

This example highlights how motion paths are built into an effect.

1. Start a new default project, and add a few words of text to the empty track in any font. One of these words is going to move around the screen, independent of the other word(s) on the track.
2. Position the track in the Canvas as you like. This will not affect the movement of the bouncing word.

3. Set the duration of the track by dragging its right edge in the Timeline. Two or three seconds is plenty.
4. Create a new, blank effect, which enables you to apply movement to the text. Make the effect duration match the track duration in the Timeline.
5. Now, even before you build the effect, make it apply to only one word on the track. That is, turn off the effect, as described in "Preset Effects" on page 88, for the words that won't be moving.
6. Add the first of three or four keyframes spaced evenly across the effect.
   a. Click in the frame ruler to position the playhead.
   b. With the playhead in position and the effect selected, choose Track > Add Keyframe (or press Command-K).

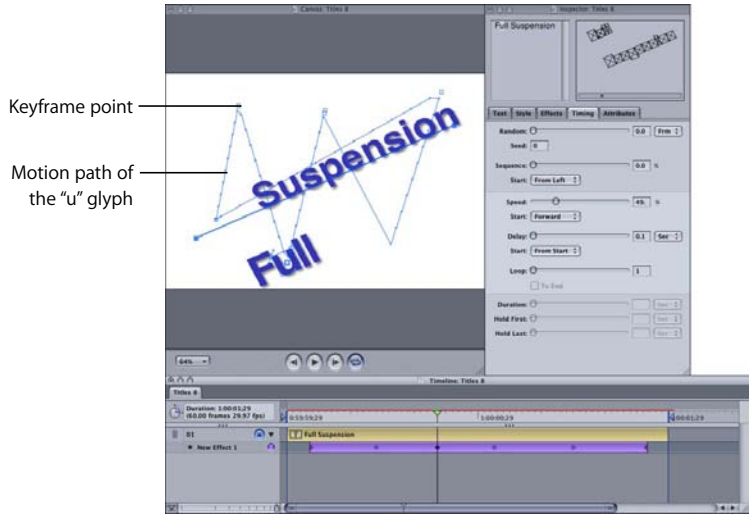
7 The next step is to position the word at the point of its first "bounce." You're adding x and y offset parameters to the effect.

a With the keyframe selected, select one of the letters you want to move. A bounding box appears around it.

b Drag the letter to a new position in the Canvas. The entire word, or all the letters that the effect applies to in this case, moves with the selected letter. Notice that the motion path appears.

c If you like, change the size, color, or any other attribute of the text for this keyframe.

8 Create a second keyframe, and drag the text to another location. Now the motion path is a triangle. Create a few more "bounces" for the word.



Motion paths can also be curves. The process is similar to creating curved tracks as described in Chapter 4, "Working With Tracks," on page 47.

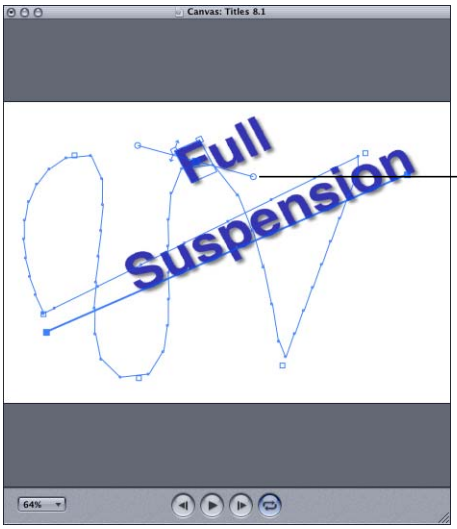
9 Add curves to your motion path by doing the following:

a With the effect selected in the Timeline, click a keyframe, or move the playhead over a keyframe.

b Select one glyph in the "bouncing" word.

c Hold down the Control key and drag the pivot point of the glyph, which is over the keyframe point in the motion path.

d Bezier handles extend away from the point, allowing you to adjust the curve.



Hold down the Option key and drag a keyframe point to pull out Bezier handles, creating a curved motion path.

10 Click Play in the Canvas, or press the Space bar, to see the results.

Creating Effects for Individual Glyphs

A unique and powerful feature of LiveType lies in the ability to instantly assign an effect to individual or selected groups of glyphs, or characters, on a track. This method can be used with new effects, as well as preset effects.

To assign an effect to individual characters:

- Select the character or characters you want to apply the effect to, then do one of the following:
  - Choose a preset effect from the Effects tab of the Media Browser, then click Apply.
  - Create your own effect by choosing Track > New Effect, then applying effects from the parameter menu in the Effects tab of the Inspector.

  The selected effect is automatically turned off for all characters that are deselected. If the track is selected and no characters are selected, the effect is applied to the entire group of characters on the track. You can reassign all characters to a single effect at any time.

Finding Effects and Media Using the Timeline

You can quickly find effects, movies, and images from the Timeline using a shortcut menu.

To find effects and media using the Timeline:

- In the Timeline, Control-click a track, then do one of the following:
  - To find effects, choose Reveal in Media Browser from the shortcut menu.
  - To find movies or images, choose Reveal in Finder from the shortcut menu.

  The effect is selected in the appropriate tab in the Media Browser, or a Finder window appears with the movie or image selected.

Previewing and Fully Rendering Your Titling Movie

8

As your project progresses, you'll want to view the results of your changes every step of the way, until you're ready to generate the final output.

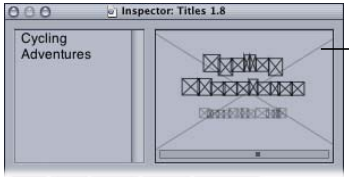
LiveType offers several modes and choices for managing the time it takes to render previews.

Previewing Your Work

Viewing a frame of your titling movie is as simple as moving the playhead in the Timeline to any frame marker and looking at the Canvas elements. Obviously, you also need to be able to see the action of your movie. LiveType offers several ways to do this.

Live Wireframe Preview

The Live Wireframe Preview window in the upper-right corner of the Inspector continually scrolls through your animation, with small bounding boxes indicating the movement of each character or object. This feature gives you an indication of your project's motion and timing at any moment.



Live Wireframe Preview in the Inspector

To freeze or unfreeze the Live Wireframe Preview:

- Click inside the Live Wireframe Preview window in the Inspector.

RAM Preview in the Canvas

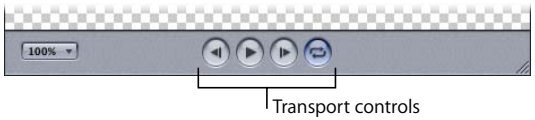
The transport controls at the bottom of the Canvas allow you to play a preview of your titling movie right in your working environment. A RAM preview displays all elements that are visible and enabled in the Canvas, as well as the Canvas guides, rulers, and so on. Thus, it differs from a preview movie, which reflects the final movie output more closely.

To play a RAM preview, do one of the following:

- Click the Play button in the transport controls at the bottom of the Canvas.
- Press the Space bar.

At first, the frames are rendered and loaded into memory one by one; then the preview plays in real time. The Pause button is displayed during this process.

The right-most transport control, the Loop button, is a toggle that sets the RAM preview to either play once through or continually loop through the movie. When the Loop button is activated, or blue, the RAM preview loops until you click anywhere in the LiveType interface.



To stop a looping RAM preview:

- Click anywhere in the LiveType interface.

To pause a RAM preview:

- Click the Pause button at any time during a RAM preview.

The Play button appears and the RAM preview stops. The RAM preview resumes when you click the Play button once more.

Preview Movie

A preview movie is basically a limited render of your titling movie.

To render a preview movie:

1. Choose File > Render Preview, then choose Wireframe or Normal.

   The Normal setting renders your preview at the level defined in the Project Properties dialog. LiveType looks for the .afd files in your /Library/Application Support/LiveType/LiveType Data folder if you have used any LiveType media in your composition. If the data files have not yet been installed, the Missing AFD dialog appears, giving you the option to install the full data files or to use proxy frames (from the corresponding .afp files) in the preview.

2. Do one of the following:

   - Select "Install missing LiveType Data now."

     This allows you to install the .afd files at a location other than the LiveType Data folder, but still access them to render previews and final movies. See "Managing LiveType Media Files" on page 29 for instructions.

   - Select "Use Poster Frames for Tracks with missing Data."

The preview appears in a separate window. You can save a preview movie by choosing File > Save As. Otherwise, LiveType deletes the preview movie when you close the window.

Optimizing Preview Performance

LiveType works with bitmapped elements that consist of pixels of information, as opposed to vector-based data. While this format is what makes possible the wide range of effects offered in LiveType, file sizes are inevitably large, and the time it takes to render a preview can become lengthy.

Rendering time is affected by each layer of complexity added to a project, including the number and file size of project elements, the number of effects applied to each element, and the duration of the movie (that is, the number of frames to render).

Quality Settings for Previews and Movie Output

LiveType offers four levels of rendering quality, set in the Project Properties dialog, to help you manage the amount of time you spend generating previews. Naturally, a lower-quality preview takes less time to render.

A wireframe-quality preview represents each element as an empty bounding box, much like the small Live Wireframe Preview in the Inspector. Draft, Normal, and High Quality settings differ only in the resolution of the preview. A draft-quality Canvas appears slightly grainy at 100 percent zoom. A draft-quality preview movie appears small on the screen.

You may find that, as you build your project, it is useful to adjust the quality settings several times, to suit your preferences.

To adjust the quality settings for viewing the Canvas, generating preview movies, and rendering a final movie:

1. Choose Edit > Project Properties.
2. In the Quality area of the dialog, choose the quality level for each of the three modes.

Strategies for Improving Render Times

In addition to the quality settings, LiveType offers numerous strategies to avoid excessive waiting for frames and previews to render:

- The *Render Selection markers* in the frames ruler of the Timeline limit the number of frames that are rendered in preview movies and in the final output.
- The *Selected Only* option in the View menu reveals only the contents of the active track in the Canvas, in preview movies, and in final movie output. This can be useful when you're focusing on the movement of a single element.
- The *Enable/Disable* buttons in the Timeline allow you to temporarily disable effects and remove tracks from the Canvas. This is another way to reduce complexity when you only require a partial preview.
- The *file size of imported elements* affects system performance. For example, instead of importing a large movie as a background for keying titles, consider importing a single frame or small clip. If an imported element is to be used in your final output, generate the original file at or near the needed resolution, as opposed to bringing in a large image and shrinking it down in LiveType.
- The *amount of RAM* memory on your system may be a factor. If saving time is critical, you may want to consider increasing your available RAM.

Rendering, Saving, and Exporting Your Titling Movie

There are a couple of different ways to handle rendering, saving, and exporting your LiveType project once you have completed it. The most practical method to choose largely depends on whether you are going to work with your project within Final Cut Pro or in another application.

- If you are working with Final Cut Pro, import the LiveType project directly into Final Cut Pro for final rendering.
- If you are working with another application, render within LiveType first, then import the rendered movie to the application.

Importing a LiveType Project Into Final Cut Pro for Rendering

Typically, a saved LiveType project file is imported into Final Cut Pro for rendering. This saves time as, unlike third-party applications, you do not have to render the file in LiveType prior to importing it.

To import a LiveType project into Final Cut Pro for rendering:

1. Choose File > Import > Files (or press Command-I), select the LiveType project file, then click Choose.

   The LiveType movie is imported into Final Cut Pro, appearing as a clip.
2. Edit the clip into a Final Cut Pro sequence.
3. Render the movie as you would any other clip.

Making Changes to a LiveType Movie from Final Cut Pro

If you have imported a LiveType movie into Final Cut Pro and need to make a change, you can make the change in LiveType and have it update in Final Cut Pro.

To make changes to a LiveType movie already imported into Final Cut Pro:

1. Select the LiveType clip in the Final Cut Pro Timeline.
2. Control-click the clip, then choose > Open in Editor from the shortcut menu.

   LiveType opens with the movie ready for adjustment.
3. In LiveType, make any changes you want, then choose File > Save.

   The change immediately updates in Final Cut Pro.

Note: You will have to re-render any changes that you have made within Final Cut Pro.

Rendering a LiveType Movie for Export

When working with a third-party application, you will need to render your movie within LiveType prior to importing it.

To render a full-resolution movie of your project for export:

1. Choose File > Render Movie.
2. Choose a filename and location in the Save dialog, then click "Create new movie file."

3. Just as with preview movies, LiveType requests that you install any missing LiveType Data files. Do one of the following:
   - Select "Install missing LiveType Data now."

     This allows you to install LiveType media files to a location other than the LiveType Data folder, but still access them to render previews and final movies. See "Managing LiveType Media Files" on page 29 for instructions.
   - Select "Use Poster Frames for Tracks with missing Data."

Note: By default, a QuickTime movie with an alpha channel is created in the Animation codec. If another codec is preferred, use the options from File > Export Movie instead.

Once LiveType has finished rendering your project, it appears in a new window.

Your rendered movie appears in a separate viewer. (In this example, the background movie was rendered with the titles.)

LiveType Export Formats

LiveType natively generates QuickTime movies with the Animation 32-bit codec for proper keying to your video. If your NLE or compositing program imports QuickTime 4 or later movies, you should be able to import these movies directly. You can also export to a variety of motion and still-image formats. Keep in mind, however, that if you want to retain the alpha channel, you must use a format that supports the 32-bit format, such as Photoshop, Targa, TIFF, and AVI.

QuickTime codecs	QuickTime codecs (cont.)	Image sequence formats	Other formats
Animation	Motion JPEGA	BMP	AVI
BMP	Motion JPEGB	JPEG	DV Stream
Cinepak	None (No compression)	JPEG 2000 Image	FLC
Component Video	PhotoJPEG	MacPaint	Heuris MPEG
DV/DVCPRO-NTSC	Planar RGB	Photoshop	MPEG-2
DVCPRO-PAL	PNG	PICT	MPEG-4
Graphics	Sorenson Video	PNG	
H.261	Sorenson Video 3	QuickTime image	
H.263	TGA	SGI image	
Intel Indeo Video r3.2	TIFF	TGA	
Intel Raw	Video	TIFF	

To export a rendered LiveType movie to a new format:

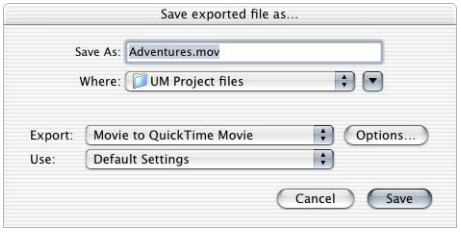
1. Open your movie output so it appears in the viewer window.

   If you just rendered your project, the QuickTime movie will be open already. If you previously rendered and saved the movie, open it using File > Open.

2. Choose File > Export Movie.

   The dialog prompts you for a new name and file location, and offers a variety of file formats to export to.

3. In the Export pop-up menu, choose the category of output you want to create.



4. In the Use pop-up menu, choose the appropriate file format or protocol.
5. Click the Options button to reveal additional settings pertinent to the format you selected.

Advanced Design Techniques

9

The key to designing great titles is to combine the capabilities and media in LiveType in creative ways. A few "recipes" for interesting looks are included in this chapter.

The following examples assume a general familiarity with the basic functions of LiveType. Because each step is not explained in great detail, you may need to refer to earlier chapters to perform some of the tasks.

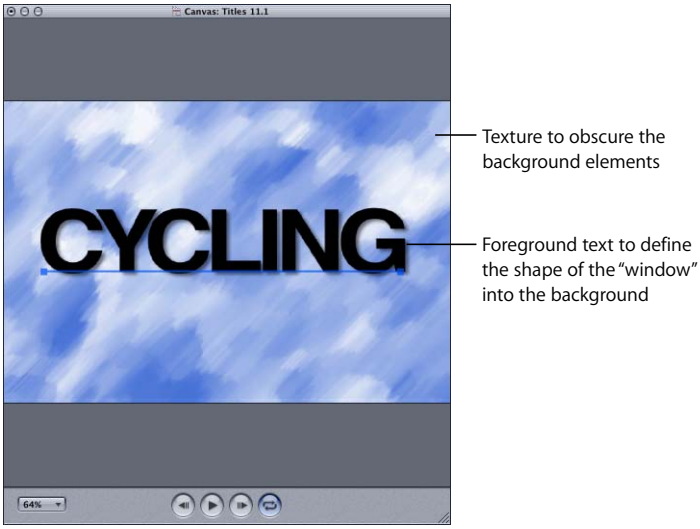
Words Within Words

The Matte to Background option can be used to create some very interesting titling compositions. Unlike Matte to Texture and Matte to Movie or Image, this matting option creates a "window" into any background—even backgrounds composed of several elements.

For example, you can create words inside of words. In this case, foreground text defines a window into background text, which slides right to left behind it. Follow these steps:

1. Create the foreground text to define the shape of the matte.
   a. Add a text track in a heavy system font such as Helvetica Bold.
   b. Type a word onto the track, then set the size so the word fills the width of the Canvas.
2. Create an intermediate layer to obscure the background.
   a. Choose a texture from the Media Browser, then click Apply To New Track.

b Make sure the texture is underneath the text, but above the background bar in the Timeline.


Canvas: Titles 11.1
CYCLING
64%
Texture to obscure the background elements
Foreground text to define the shape of the "window" into the background

3 Create a dynamic background that's visible through the window created by the foreground word.

a Add a new text track to the Canvas, then enter some text that's smaller than the foreground word you created in step 1.

b Position the track over the foreground text, and format the background text as you like.

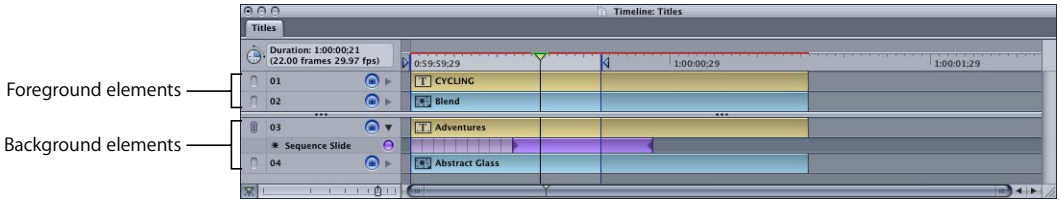
c Apply a crawl or slide effect to the track, to make the text move right to left.

d Drag the track below the background bar in the Timeline.

e Temporarily disable the texture and the foreground text track in the Timeline.

f Define a background color in the Project Properties dialog, or place a different background behind the background text.

g Enable the texture and the foreground text track in the Timeline.



4 Select the foreground text and choose Background from the "Matte to" pop-up menu in the Matte pane of the Attributes tab of the Inspector.

Warping Shadows and Glows

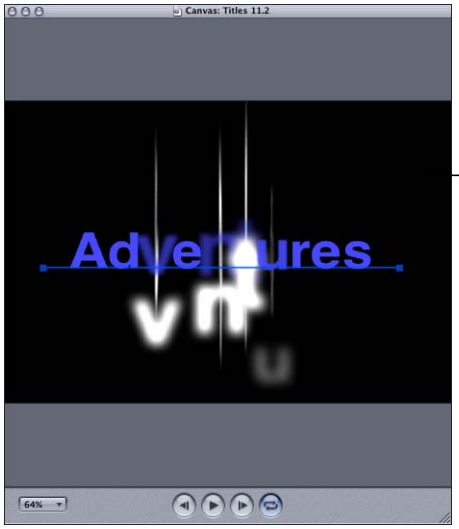
The Warp feature in the Style tab of the Inspector can be used to create a surprising variety of shapes to enhance your titles. This section describes how the Needle Drop effect takes advantage of the Warp parameter, in combination with several other parameters, to create a unique look.

1 Open a new project, and enter some text in a system font onto the track.

2 Change the text to a bright color in the Glyph pane of the Attributes tab of the Inspector, then close the Colors window.

3 In the Project Properties dialog, change the background color to black, at 100 percent opacity.

4 Apply the Needle Drop effect to the track, which is in the Glows category in the Effects tab of the Media Browser.



The Needle Drop effect applied to text on a black Canvas background

5 Set the track and effect durations to 1 second, set the Render Selection Out Point at 1 second, then click the Play button to render a RAM preview.

6 With the playhead over the effect in the Timeline, click the Effects tab of the Inspector to view the active parameters.

The essential parameters used to create the Needle Drop effect are as follows:

- *Glyph settings:* At the beginning keyframe, the glyphs on the track are small, transparent, and blurred. At the ending keyframe, the characters are normal. The middle keyframe simply makes the letters larger than normal.
- *Glow settings:* At the beginning keyframe, the glow is invisible, with a 0 percent opacity, and has a vertical offset of –200 pixels. At the middle keyframe, the glow opacity is set at 500 percent, with some Scale and Blur adjustments and no offset. And at the ending keyframe, the glow is invisible again, and the vertical offset is 200 pixels.
- *Shadow settings:* The shadow is what creates the "needles." The shadow color is set to white, and the scale is set to 10 percent on the x axis, making the shadows very thin. The warp settings accentuate the narrow tips of the needles. And the shadow blur is set to 2 percent, which is essential for this effect. At the ending keyframe, the shadow goes to 0 percent opacity.
- *Timing settings:* The Random parameter in the Timing tab is used to make this effect apply to each glyph in a random order.

One track, one effect, three keyframes—it's actually fairly easy to re-create this effect. And even with the numerous parameters involved, the LiveType Timeline is remarkably clean, since one keyframe encapsulates all the parameters at a point in time.

For another example showing an effective use of Warp parameters, take a look at the Screech effect, in the Caricature category of the Effects tab in the Media Browser. This effect is created by making the glyphs invisible and using the glow channel to display the letters, which are distorted using Warp parameters.

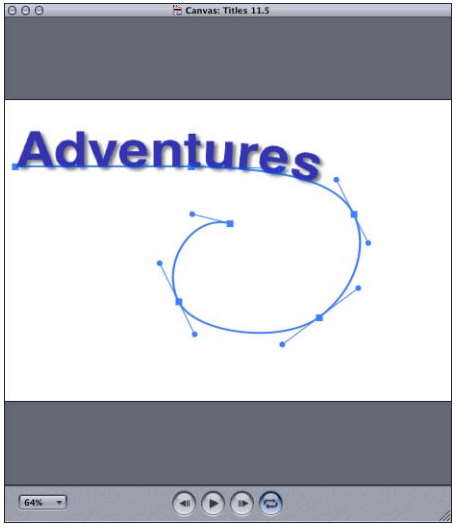
Track Curves

Using a Slide effect along a curved track can create a three-dimensional effect.

This example explains how to combine these features to send text into a vortex in only a few steps.

1. Open a new project, and enter some text onto the track.
2. Left-justify the text on the track.
3. Move the track up toward the top of the Canvas.
4. Add a control point in the middle of the track by holding down the Control key and clicking the track line in the Canvas. Control-click the control point to choose Curve Out.

   You want to leave the left half of the track more or less in the same position, and create a curved path arcing down and around clockwise from that point. Only a couple of additional control points are needed. See Chapter 4, "Working With Tracks," on page 47 for more about making curved tracks.



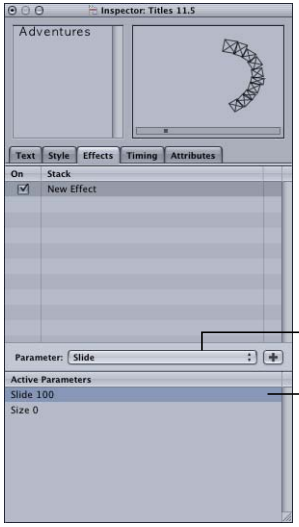
5 Add a new effect to the track.

6 Select the ending keyframe of the effect.

7 In the Effects tab of the Inspector, add the Slide parameter to the Active Parameters stack. Double-click the Slide parameter and set the value to 100, which is a percentage of the track's length.

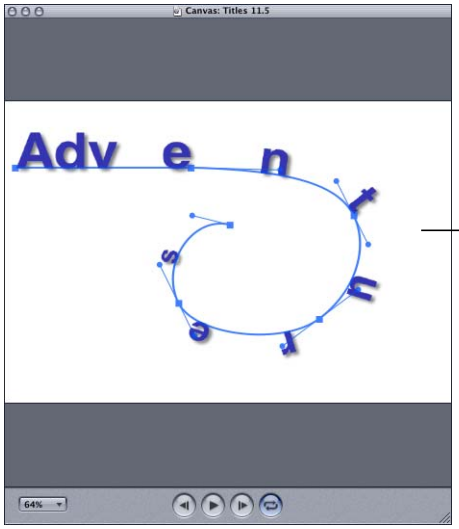
When you assign the Slide value to the ending keyframe, the beginning keyframe defaults to a Slide value of 0.

8 While you're still on the ending keyframe, set the Size parameter to 0.



9 In the Timing tab of the Inspector, set the Sequence value to 10, and choose From Right from the Start pop-up menu.

10 Adjust the ending keyframe Slide value as needed for the right look, which can vary depending on the length of the track and the text sliding on it.



The text appears to spiral down into a vortex.

Creative Use of Special Characters

Symbols and other kinds of special characters can be very useful and convenient as titling elements. Because these characters are vector-based shapes, they have very small file sizes, and no upper limit to their size in the Canvas. Plus, they're easy to access.

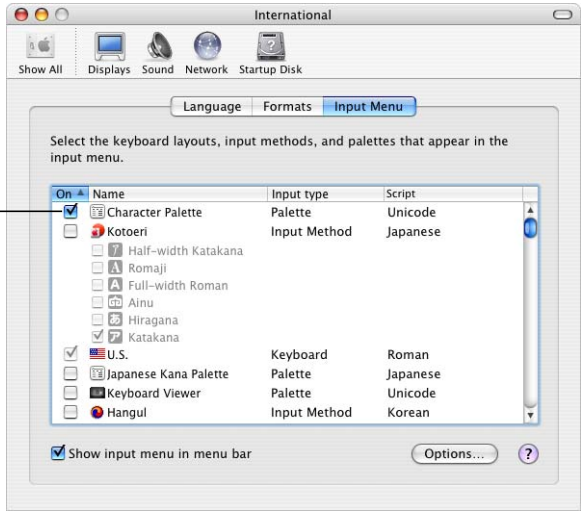
This example shows you how to create a pattern of boxes, covering the Canvas, which randomly change colors and fade away to reveal a message or image behind them.

1 Open a new LiveType project, and click in one of the text-entry areas.

2 Open the Character Palette.

- If your Character Palette is enabled in your Mac OS X System Preferences, it appears as a small icon on the right side of the LiveType menu.

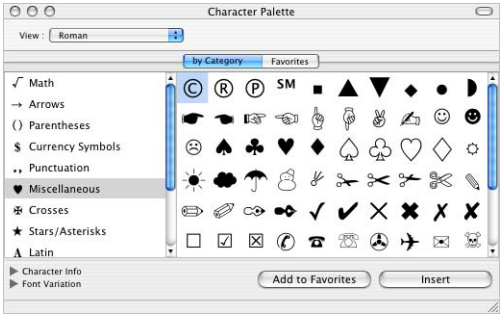
- To enable the Character Palette, open System Preferences, click International, click the Input Menu button, and select Character Palette.



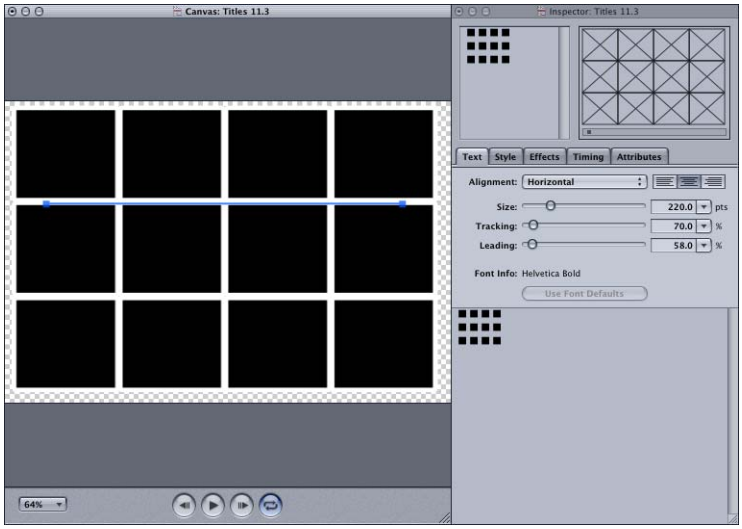
Enable the Character Palette in your System Preferences.

- Alternatively, in LiveType, you can Control-click inside one of the text-entry boxes in the Inspector, then choose Font > Show Fonts from the shortcut menu. The Font dialog appears. Choose Characters from the Extras pop-up menu located on the bottom-left corner of the Font dialog.

3 Choose a solid square character, then click Insert to add the character to the text-entry box. Insert three lines of four boxes on the same text track.



4 Adjust the Size, Tracking, and Leading parameters in the Text tab of the Inspector to create a panel of evenly spaced squares.

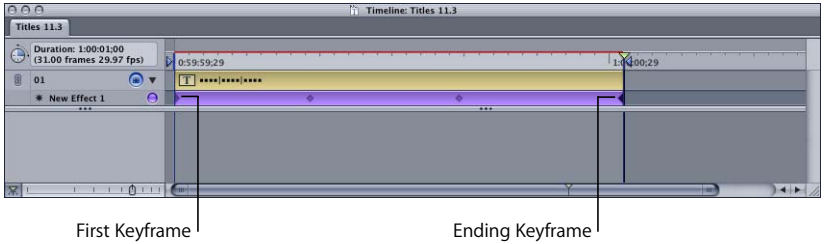


5 In the Style tab, disable the shadow, and add a white outline thick enough for the outlines of each square to touch each other, obscuring the Canvas background.

6 Add a new effect, and set the duration of both the track and the effect to 1 second in the Timeline.

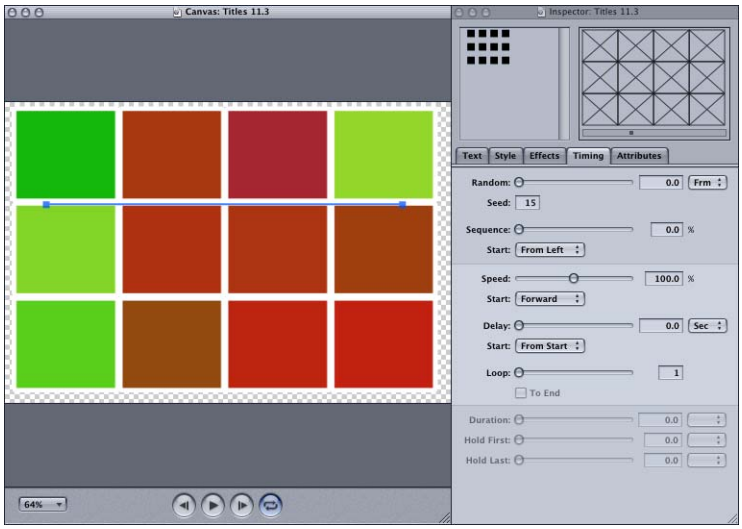
7 Select the beginning keyframe of the effect, and choose a glyph color in the Attributes tab of the Inspector. Change the ending keyframe to a different color. Then position the playhead at several intermittent points, changing the color each time.

If you change an effect parameter when the playhead is not on a keyframe, a new keyframe is automatically added to the effect under the playhead. This step shows how automatic keyframe insertion can be a convenient time saver.



8 Set the glyph opacity to 0 percent at the ending keyframe, so that squares fade out at the end.

9 In the Timing tab, set the Random setting to 15.



10 Add text or another element behind the panel of squares, so it is gradually revealed as the squares fade away.

LiveFonts and Layers

Several LiveFonts that come with LiveType are designed to work in tandem with other fonts. One of these is the Nitro font, which can make text look like it explodes. These steps explain how to use such fonts effectively.

Note: You need to install the Nitro data file to follow this example. See "Managing LiveType Media Files" on page 29 for information on installing LiveType media.

1 Create a text track, and apply a system font with any basic formatting you like.

2 Choose Track > Duplicate Track to create a copy positioned directly over the original track.

3 In the Timeline, lock the two tracks together using the grouping buttons.

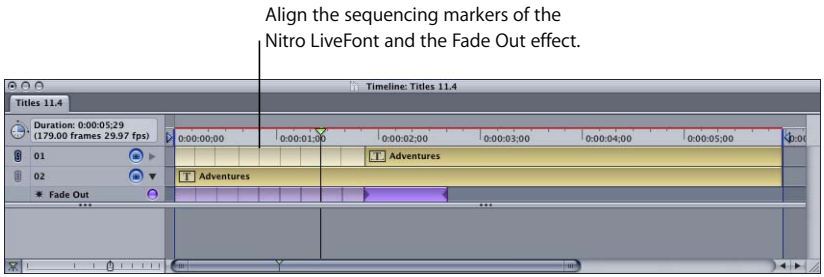
4 Select Track 1, and apply the Nitro LiveFont.

5 In the Style tab of the Inspector, disable the shadow for Track 1.

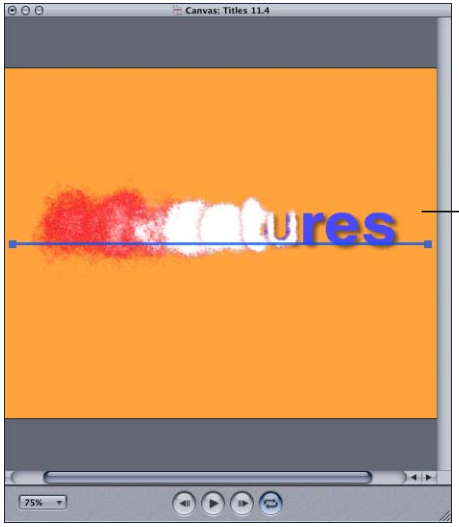
6 In the Timing tab, set Sequence at 5 percent, then shorten the duration of the track, either by dragging the end of the track in the Timeline or by adjusting the Speed parameter in the Timing tab.

7 Apply the Fade Out effect to Track 2, since you want the letters to disappear once they've exploded.

The trick is that you want the letters to fade out just as they explode, and because they are exploding in sequence, you need to align the timing of the sequencing markers for the two tracks.



8 Using the sequencing markers in the Timeline as your guide, adjust the speed of the Fade Out effect to line up the sequencing markers of Track 1 and the Track 2 effect.


Canvas: Titles 11.4
75%
The combination of the top layer of text in the Nitro LiveFont, and the underlying text that fades away, makes the letters appear to explode from left to right.

Creating Scrolls and Crawls

Scroll and crawl effects are used to create credit rolls, or to slide strings of text across the screen like a stock ticker. These two kinds of effects use the Canvas Offset parameter to create a vertical or horizontal motion path long enough to move text onto the Canvas and fully off the opposite side.

The offset value, which defines the length of the motion path, is based on the length of the element that's scrolling or crawling. So it's best to enter and format the text *before* applying the effect, so you don't have to reposition the starting point of the element multiple times.

Note: From a design standpoint, scrolls and crawls are best used with system fonts, as opposed to LiveFonts. If you do choose to scroll a LiveFont, you'll need to work with the font's timing parameters, including speed and the Hold First and Hold Last options in the Timing tab of the Inspector, to coordinate the LiveFont animation with the scrolling or crawling movement.

To create scrolling text:

1. Enter several lines of text onto a new track, using the Return key to create line breaks in the text-entry box.
2. Format the text, paying particular attention to any parameter affecting the total vertical length of the lines of text—font, size, leading, and so on.
3. Apply a scroll effect from the Scrolls and Crawls category in the Effects tab of the Media Browser.
4. Adjust the speed of the scroll, which is now visible in the Live Wireframe preview, by dragging the right edge of the effect bar in the Timeline, or by changing the Speed setting in the Timing tab of the Inspector.
5. In the Timeline, drag the right edge of the track to match the duration of the effect.
6. Move the text to its starting position.
   a. Make sure the playhead is over the first frame in the Timeline.
   b. Set the Canvas zoom to 25 percent, to see outside the boundaries of the Canvas.
   c. Drag the track in the Canvas to set the starting position of the scrolling text. (Text that is beyond the edge of the Canvas is represented by blue bounding boxes.) Hold down the Shift key as you drag to constrain the horizontal position of the track.

      If you are using the Scroll Up effect, for example, you might want to set the starting position of the first line of text just below the bottom edge of the Canvas.

To create crawling text:

1. Enter text—typically several words or a sentence on one line—onto a new track.
2. Format the text, paying particular attention to any parameter affecting the total horizontal length of the text—font, size, tracking, and so on.
3. Apply a crawl effect from the Scrolls and Crawls category in the Effects tab of the Media Browser.
4. Adjust the speed of the crawl, which is now visible in the Live Wireframe preview, by dragging the right edge of the effect bar in the Timeline, or by changing the Speed setting in the Timing tab of the Inspector.
5. In the Timeline, drag the right edge of the track to match the duration of the effect.
6. With the playhead over the first frame, drag the track in the Canvas to adjust its starting position.

Solutions to Common Problems and Customer Support

If you run into problems while working with LiveType, there are several resources you can use to find a solution.

- *This appendix:* This appendix includes information about some of the most frequent issues users encounter.
- *Late-Breaking News:* A late-breaking news page in the LiveType Help menu provides last-minute information that didn't make it into the manual. Be sure to consult this help page as soon as you install LiveType.
- *AppleCare Knowledge Base:* AppleCare Support maintains a database of common support issues that is updated and expanded to include new issues as they arise. This is an excellent, free resource for LiveType users. To access the AppleCare Knowledge Base, go to the AppleCare support page at http://www.apple.com/support.
- *AppleCare Support:* There are a variety of support options available to LiveType customers. For more information, see the *Apple Professional Software Service & Support Guide* that comes with your Final Cut Pro documentation.

Frequently Asked Questions

Some fonts appear to shake in the preview movie.

- Because LiveType uses a small sampling for low-quality previews, some images may be missing pixel data that provides smoother movement. Increase your quality settings in the Project Properties dialog to produce smooth results.

My images appear pixelated.

- If you render a preview, your movie is displayed in low resolution and appears a bit pixelated. Also, if you size your elements beyond their original size, some pixelization may occur.

LiveType doesn't open anymore.

- It is possible to save a set of default settings that prevents LiveType from opening. Try erasing your default settings file: <user>/Library/Preferences/LiveType Pro Defaults.dat. Your configuration reverts to the original LiveType settings. This is essentially the same as choosing LiveType > Settings > Clear Settings within the application.

The motion is not smooth on my NTSC monitor.

- Use the fielding option for the smoothest motion.

When I bring titles into my nonlinear editor (NLE) or compositing program, the characters appear squashed or the aspect is wrong.

- Make sure to set the project properties in LiveType according to the size and pixel aspect your NLE uses. Some NLEs require the correct frame size even if the title doesn't use the entire frame. Square pixels take a value of 1, and NTSC pixels take a value of .9.

A keyframe is "stuck" at the beginning or end of an effect, and I can't select it, move it, or delete it.

- Try increasing the Timeline zoom, to see whether you can select and drag the keyframe away from the beginning or end of the effect.

  Because the beginning and ending keyframes cannot be deleted, it is possible to slide an internal keyframe to the far end of the effect so that it cannot be moved, regardless of the Timeline magnification.

To select an obscured keyframe, do the following:

1. Select the beginning or ending keyframe that's obscuring the other keyframe.
2. Choose View > Go To > Next Keyframe (or Previous Keyframe) to select the "lost" keyframe.
3. Choose Edit > Cut.
4. Move the playhead and choose Edit > Paste.

When I apply an effect with a glow or shadow change, I don't see a change in the Live Wireframe Preview in the Inspector.

- The wireframe boxes in the preview show the basic shape of each glyph, and aren't changed by Style settings. Other preview options, such as a RAM preview or preview movie, reveal shadows and glows.

When I change certain attributes of a track, they don't seem to have any effect.

- Because effect parameters override track parameters, you may be trying to adjust a parameter that is being overridden. Disable the effects associated with that track to see whether the attributes become active again. If so, the solution is to change the effect parameters.

I can't select an element or character.

- Make sure that Lock Position is not selected in the Layout menu. When you add a texture or background movie, it is locked by default.
- Also, you may be clicking an element that uses the entire Canvas. Try zooming out to view beyond the edge of the Canvas to reveal its bounding box.
- Consider the layer order, too, when you want to select an element on the Canvas. If one element gets in the way of selecting another, use the Timeline to select the track underneath, and highlight glyphs in one of the text-entry boxes in the Inspector.

I keep accidentally selecting the texture, image, or movie I created on a track as a background image.

- Choose Layout > Lock Position to prevent the element from being selected.

When I have a lot of elements in the Canvas, everything slows down.

- See Chapter 8, "Previewing and Fully Rendering Your Titling Movie," on page 109 for ways to optimize preview performance.

Apple Applications Page for Pro Apps Developers

The Apple Developer Connection website includes an Apple Applications page that is a one-stop destination for developers creating content or extensions for professional applications. On this page, developers can find late-breaking news of interest and technical resources such as developer documentation, special articles, and SDKs. Developers can also sign up for a new Pro Apps Developer mailing list. The URL is http://developer.apple.com/appleapplications.

Calling AppleCare Support

Included in your LiveType package is documentation about the support options available from Apple. Several levels of support are available, depending on your needs.

Note: There are certain support situations in which AppleCare may require information about both your computer and how this particular application is configured. Choosing Help > Create Support Profile creates a file that contains the necessary information and can be emailed to AppleCare. You would not normally use this feature unless directed to by an AppleCare representative.

Whatever your issue, it's a good idea to have the following information immediately available. The more of this information you have ready to give to the support agents, the faster they will be able to address your issue.

- The Support ID number that came with Final Cut Pro. This number is different from the software serial number that is used to activate your copy of LiveType.
- Which version of Mac OS X you have installed. This information is available by choosing About This Mac from the Apple menu.
- The version of LiveType you have installed, including updates if applicable. The version number can be viewed by choosing LiveType > About LiveType.
- The model of computer you are using
- How much RAM is installed in your computer, and how much is available to LiveType. You can find out how much RAM is installed by choosing About This Mac from the Apple menu in the Finder.
- What other third-party hardware is connected to or installed in the computer, and who are the manufacturers. Include hard disks, video cards, and so on.
- Any third-party plug-ins or other software installed along with LiveType

AppleCare Support can be reached online at http://www.apple.com/support/livetype/index.html.

Creating and Editing EffectScripts

B Appendix

Effects in LiveType are based on the EffectScript language. Effects consist of a plain text file and a representative QuickTime movie, which appears in the Media Browser in the LiveType interface.

Each line of an EffectScript consists of a command followed by a set of command arguments. Tabs and spaces are skipped. In any command, two hyphens (--) can be followed by a comment. Comments are ignored by the EffectScript interpreter.

Header

The following header commands should appear at the beginning of each EffectScript.

EffectScript 1.0

- Use 1.0. as the EffectScript specification version number.

Name "effect name"

- Name the effect. Quotation marks can be any non-space delimiter (", ', /, and so on).

Desc "description"

- Describe the effect. The description may be a long string; the text wraps when displayed.

Default Timing

After the header, an EffectScript should have default timing settings.

DefOffset a b c

- a is a numeric value.
- b is %, Seconds, or Frames.
- c is Start or End.

DefReverse a

- a is 0 for forward, or 1 for reverse.

DefSequence a b c

- a is 0 for Off or 1 for On.
- b is a numeric % value, may be floating point.
- c is L for left first, or R for right first.

DefRandStart a b c

- a is 0 for Off or 1 for On.
- b is a numeric value, may be floating point.
- c is %, Seconds, or Frames.

DefLoop a

- a is a numeric value, must be an integer (use a large number like 9999 to loop forever).

DefSpeed a

- a is a numeric % value, may be floating point.

Keyframes

After the header, an EffectScript defines a number of keyframes. A keyframe starts with a Time command:

Time t

- t is the time of the keyframe in seconds.

Each Time command is followed by parameter commands. For example, here is a keyframe:

```
Time 0.0
  Scale 50
  Track -50
```

This keyframe means that at time Zero seconds, each glyph scales by 50 percent, and its tracking decreases by 50 percent.

The first keyframe must be at time 0.0, and there must be at least one other keyframe after that. All keyframes must be listed in order. All keyframes in a given effect should have the same set of parameter commands.

The following parameter commands are valid in a keyframe:

Accelerate n

- n is a percentage of acceleration. This affects how all the other keyframe parameter values are interpolated between this keyframe and the next. 0 means no acceleration, 100% means speed up, -100% means slow down.

Blur x [y]

- x is the blur radius in pixels. If y is given, then the horizontal and vertical blur amounts are distinct.

CanvasOffset x y

- x and y are the horizontal and vertical offsets, in percentage of the Canvas dimensions.

This is the parameter used for scrolls and crawls.

Color r g b [n]

- r, g, and b are color values, in [0..255].
- n is optional, and is an opacity percentage.

DoExtrude x

- x is 0 for no extrusion, 1 for extrude.

DoGlow n

- n is 0 for No or 1 for Yes.

DoShadow n

- n is 0 for No or 1 for Yes.

ExtrudeDirection n

- n is an angle in degrees, 0 for up, 90 for right, and so on.

ExtrudeLength n

- n is the extrusion length in pixels.

ExtrudeColor r g b

- r, g, and b are the extrusion color, in [0..255].

ExtrudeOutline n

- n is 0 for no outline, 1 to outline the extrusion.

GlowBlur n

- n is the glow blur radius in pixels.

GlowColor r g b

- r, g, and b are the glow color, in [0..255].

GlowLayer n

- n is 0 for behind all, 1 is behind track, 2 is in front, 3 is in front matted to glyph.

GlowOffset x y

- x and y are the glow offsets in pixels.

GlowOpacity n

- n is the glow opacity percentage.

GlowScale x y

- x and y are the glow scale percentages.

GlowWarp x1 y1 x2 y2 x3 y3 x4 y4

- x, y pairs are the four Warp points.

HideChar n

- n is 0 for Show the glyph in addition to lighting effects (Outline, Shadow, Glow, Extrude), or 1 to Hide it.

HSL h s l

- h is the hue angle adjustment in degrees; 0 means no change.
- s is the saturation adjustment in percent; 0 means no change.
- l is the lightness adjustment in percent; 0 means no change.

Leading n

- n is a % that adjusts the position of the next line in the track (for example, use 0 to put the next line on top of this one, 100 to leave it unchanged, or 200 to double it).

Matte n

- n is 0 or 1 for Off or On.

Offset x y

- x and y are the horizontal and vertical offsets, in pixels.

Opacity n

- n is the opacity percentage. This is multiplied by the glyph's opacity.

Outline n

- n is the pixel width of the outline.

Rotate n

- n is the rotation angle, in clockwise degrees.

Scale x y

- x and y are the horizontal and vertical scale percent multipliers. Scaling is done about the glyph pivot point.

SetOutlineColor r g b

- r, g, and b are the outline color, in [0..255].

SetOutlineBlur n

- n is a number of pixels.

SetOutlineOnly n

- n is 0 for No or 1 for Yes.

SetOutlineWarp x1 y1 x2 y2 x3 y3 x4 y4

- x, y pairs are the four Warp points.

ShadBlur n

- n is the shadow blur radius in pixels.

ShadColor r g b

- r, g, and b are the shadow color, in [0..255].

ShadLayer n

- n is 0 for behind all, 1 for behind track, 2 for in front, 3 for in front matted to glyph.

ShadOffset x y

- x and y are the shadow offsets in pixels.

ShadOpacity n

- n is the shadow opacity percentage.

ShadScale x y

- x and y are the shadow scale percentages.

ShadWarp x1 y1 x2 y2 x3 y3 x4 y4

- x, y pairs are the four Warp points.

Size n

- n is percent modifier for the glyph size. This affects not only the size of the glyph but also the leading and tracking, which are based on the size. Glyphs are sized about the glyph center on the baseline.

Slide n

- n is the amount an element slides along its track, in percent of the track's length.

Tracking n

- n is a % that adjusts the position of the next glyph (for example, use 0 to put the next glyph on top of this one, 100 to leave it unchanged, or 200 to double it).

Sample EffectScripts

You can view an EffectScript simply by opening one of the effect files stored in the /Library/Application Support/LiveType/Effects folder of your hard drive. Some simple EffectScripts follow:

Zoom In

```
EffectScript 1.0
----------------------------------------------------------------------
-- "Zoom In" example
Name "Zoom In"
Desc "Zoom In each glyph linearly from zero to normal from its anchor point.
     Simultaneously increase the kerning from zero to normal."
DefOffset 0 % Start
DefSequence 0 0 L
DefRandStart 0 0 %
DefLoop 1
DefSpeed 100

Time 0.0
    Tracking -100    -- -100% tracking, means zero tracking.
    Scale 0 0        -- 0% scale
Time 2.0
    Tracking 0       -- 0% tracking, means normal.
    Scale 100 100    -- 100% scale.
----------------------------------------------------------------------
```

Zoom Out

```
EffectScript 1.0
----------------------------------------------------------------------
-- "Zoom Out" example
Name "Zoom Out"
Desc "Zoom Out each glyph linearly from normal to zero from its anchor point.
     Simultaneously decrease the kerning from normal to zero."

DefOffset 0 % End
DefSequence 0 0 L
DefRandStart 0 0 %
DefLoop 1
DefSpeed 105

Time 0.0
    Tracking 0
    Scale 100 100
Time 2.0
    Tracking -100
    Scale 0 0
----------------------------------------------------------------------
```

Tinted Rotate

```
EffectScript 1.0
-----------------------------------------------------------------------
-- "Tinted Rotate" example
Name "Tinted Rotate"
Desc "Rotate each glyph around its anchor point at 1 rev/sec. For fun,
     simultaneously mess around with the color"

DefOffset 0 % Start
DefSequence 0 0 L
DefRandStart 1 100 %
-- note large loopCount so that it will loop through the whole duration.
DefLoop 9999
DefSpeed 100

Time 0
   Color 255 0 0  -- Tint Red (R=255, G=0, B=0)
   Rotate 0
Time 1
   Color 0 255 0  -- Tint Green (R=0, G=255, B=0)
   Rotate 120
Time 2
   Color 0 0 255  -- Tint Blur (R=0, G=0, B=255)
   Rotate 240
Time 3
   Color 255 0 0  -- Tint Red (R=255, G=0, B=0)
   Rotate 0
-----------------------------------------------------------------------
```

Glossary

16:9 A widescreen aspect ratio for video. The ratio of the width to the height of the visible area of the video frame, also called the picture aspect ratio, is 16:9, or 1.78.

alpha channel An additional image channel used to store transparency information for compositing. Alpha channels are often 8-bit, but some applications support 16-bit alpha channels. Only certain formats, such as PICT and the QuickTime Animation codec, support alpha channels.

aspect ratio A video frame's width-to-height ratio on your viewing screen. The most common aspect ratio is 4:3, used for common television screens.

AVI Acronym for Audio-Video Interleaved, Microsoft's standard format for digital video.

Bezier handles Two-direction handles that control or influence the curve of the line segment between the handle and the next point on either side. The farther a direction handle is pulled out from its vertex point, the more force it applies to its line segment to bend or curve it. Direction handles are moved by dragging them.

bin In Final Cut Pro, the window that contains your clips, transitions, effects, and generators. The bin lets you organize all of these elements, sort them, add comments, rename items, and so on.

Canvas One of the four main windows in the LiveType interface, where you position text and objects, create motion paths, and view the results as you design.

channels May refer to color channels or alpha channels. Color and transparency information for video and graphics clips is divided into individual channels.

CMYK Abbreviation for Cyan Magenta Yellow Black. The color space commonly used for images that will be printed with 4-color ink on offset presses.

codec Short for compressor/decompressor. A software component used to translate video or audio between its uncompressed form and the compressed form in which it is stored. Sorenson Video and Cinepak are common QuickTime video codecs. Also referred to as a compressor.

compositing The process of combining two or more video or electronic images into a single frame. This term can also describe the process of creating various video effects.

compression The process by which video, graphics, and audio files are reduced in size by the removal of redundant or less important data. See also *codec*.

decompression The process of creating a viewable image for playback from a compressed video, graphics, or audio file.

digital A description of data that is stored or transmitted as a sequence of ones and zeros. Most commonly, this means binary data represented using electronic or electromagnetic signals. QuickTime movie files are digital.

digital video Refers to the capturing, manipulation, and storage of video using a digital format, such as QuickTime. A digital video camcorder, for example, is a videocamera that captures and stores images on a digital medium such as DV. Video can then be easily imported.

duration The length of time that a track or effect exists in the Timeline.

DVD A DVD disc looks much like a CD-ROM or audio disc, but uses higher density storage methods to significantly increase its capacity.

effect In LiveType, a set of attribute and timing parameters that animate an element.

element In LiveType, anything that is placed on a track: an individual character, a block of text on a single track, an object, a movie, a texture, or an image.

field Half of an interlaced video frame consisting of the odd or the even scan lines. Alternating video fields are drawn every 1/60th of a second in NTSC video to create the perceived 30 frames per second video. There are two fields for every frame, an upper field and a lower field.

FireWire The Apple trademark name for the IEEE 1394 standard. FireWire is a fast and versatile interface used to connect DV cameras to computers. FireWire is well suited to applications that move large amounts of data, and can also be used to connect hard disks, scanners, and other kinds of computer peripherals.

font A complete set of a single typeface. See also *LiveFont*.

frame Video consists of a number of still-image frames which, when they play back over time, give the illusion of motion. NTSC video plays back 29.97 frames per second, and PAL video plays back 25 frames per second. Each broadcast video frame is made up of two fields, which is different from the way film handles frames. A film frame is a single photographic image, and does not have separate fields.

glyph A single character on a track. A glyph frequently refers to a letter or symbol, but an object, texture, or imported element can also be referred to as a glyph in LiveType.

importing The process of bringing files of various types into a project in LiveType. Imported files have usually been created or captured in another application.

Inspector One of the four main windows in the LiveType interface, which is used to insert text and apply attributes, styles, and effect parameters to titling elements.

keyframe A special-purpose marker that denotes a value change of one or more parameters in an applied effect. When two keyframes are set in LiveType, the application calculates a smooth transition based on their values.

LiveFont LiveFonts are sets of 32-bit characters. Most LiveFonts are computer-based animations. However, they may also be composed of video footage or still photographs.

LiveType media The collective term for LiveFonts, textures, and objects in LiveType, all of which are built using the 32-bit .afd format for animated fonts.

markers In Final Cut Pro, markers refer either to the edit points that define the Start and End points of a clip, or to points of reference you can use to denote places of interest in your clips and sequences.

Media Browser One of the four main windows in the LiveType interface, which is used for selecting fonts, objects, textures, and effects.

NTSC format NTSC stands for *National Television Standards Committee*, the organization that defines North American broadcast standards. The term "NTSC video" refers to the video standard defined by the committee, which has a specifically limited color gamut, is interlaced, and is approximately 720 x 480 pixels, 29.97 frames per second.

object In LiveType, objects are single 32-bit elements. Like LiveFonts, they may be computer-based animations, real-world video, or still photographs, as well as other elements such as lower thirds.

PAL format Acronym for *Phase Alternating Line* format. A 25 fps (625 lines per frame) interlaced video format used by many European countries.

PICT A still-image file format developed by Apple. PICT files can contain both vector images and bitmap images, as well as text and an alpha channel. PICT is a ubiquitous image format on Mac OS computers.

pixel One dot in a video or still image. A typical low-resolution computer screen is 640 pixels wide and 480 pixels tall. Digital video movies are often 320 pixels wide and 240 pixels tall.

pixel aspect ratio The ratio of width to height for the pixels that compose the image. NTSC pixels are square (1:1 ratio), but D-1 pixels are nonsquare.

postproduction The process of editing film or video after acquiring the footage.

QuickTime The Apple cross-platform multimedia technology. Widely used for CD-ROM, web video, editing, and more.

RAID Acronym for *Redundant Array of Independent Disks*. A method of providing nonlinear editors with many gigabytes of high-performance data storage by teaming together a group of slower, smaller, cheaper hard disks.

RAM Acronym for *random-access memory*. Your computer's memory capacity, measured in bytes, which determines the amount of data the computer can process and temporarily store at any moment.

render In LiveType, the process of combining project elements with any applied effects, one frame at a time. Once rendered, your titling sequence can be played in real time.

RGB Abbreviation for *Red Green Blue*. A color space commonly used on computers. Each color is described by the strength of its red, green, and blue components. This color space directly translates to the red, green, and blue phosphors used in computer monitors. The RGB color space has a very large gamut, meaning it can reproduce a very wide range of colors.

SECAM Acronym for *Sequential Couleur Avec Memoire*. The French television standard for playback. Similar to PAL, the playback rate is 25 fps.

sequencing An effect treatment in which each glyph on a track is transformed individually. A sequenced effect starts by transforming one character, then moves to the adjacent character, and so on.

texture In LiveType, textures are full-screen animations, useful as backgrounds, texture mattes, or borders.

TIFF Acronym for *Tagged Image File Format*. A widely used bitmapped graphics file format, developed by Aldus and Microsoft, that handles monochrome, grayscale, 8- and 24-bit color.

timecode A method of associating each frame of film or video in a clip with a unique, sequential unit of time. The format is hours:minutes:seconds:frames.

Timeline One of the four main windows in the LiveType interface, which shows the timing of project elements and the effects applied to them.

title safe area The part of the video image that is guaranteed to be visible on all televisions. The title safe area is 80 percent of the screen.

track In LiveType, a track is what contains an element and its attributes. In the Canvas, a track appears as a dark blue line, usually at the base of the text, object, or image it contains. A track can be shaped to form a motion path for the track's contents to move along. In the Timeline, a track is represented by a numbered bar, often with applied effects underlying it.

widescreen Widescreen format is a way of shooting and projecting a movie in theaters. The original footage doesn't get cut off because of the 4:3 aspect ratio. With the advent of high definition video, widescreen 16:9 video is coming into more popular use.

wireframe The most elementary preview mode in LiveType, representing characters and objects as bounding boxes. Wireframe previews are useful because they render very quickly, showing the motion of elements.

x Used to refer to the x coordinate in Cartesian geometry. The x coordinate describes horizontal placement.

y Used to refer to the y coordinate in Cartesian geometry. The y coordinate describes vertical placement in motion effects.

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